

# GS PRODUCT GUIDE



**GLOBALTECH**  
**SEMICONDUCTOR**



## Company Profile

**Globaltech Semi** is a leading supplier of power management semiconductor solutions to industry. Established in Mar. 1994, in the early stages, Globaltech Semi was the sole agent of famous worldwide IC manufacturer and it turned to be an owned brand IC supplier since 2001 by our strong design and support team.

**Globaltech Semi** is successful in the market of motherboard and internet devices, planned to extend the product and sales to other market including portable devices, notebook , LCD TV, and even power supply manufacturers.

**Globaltech Semi** is willing to become a leader supplier in power management semiconductor products to commercial market and expand over worldwide within next 2 years. Globaltech Semi is scheduled to develop over 15 products every year with the best quality and competitive price.

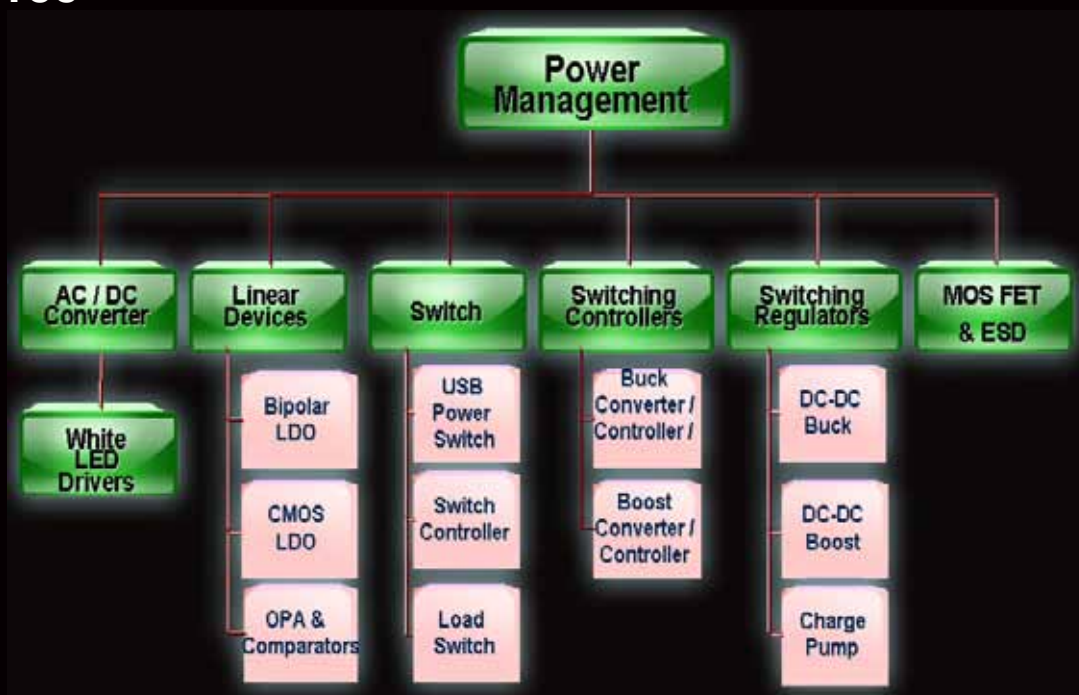


"Family" is the fundamental thinking in Globaltech's culture.

## Quality and Green Commitment

**Globaltech Semi** is committed to providing environmentally friendly products are SGS qualified specifications that not only meet RoHS standards, but are also available in Halogen-free options upon request. And also offer high efficient power products are your green synchronous partner.

## Product Tree







## AC / DC CONVERTERS

### PWM Series

| GS P/N  | Supply Voltage | Output Power | Switching Mode | Fosc  | Switch Current | Package Type |
|---------|----------------|--------------|----------------|-------|----------------|--------------|
| GS8201* | 18V            | 12W          | PWM            | 66KHz | 800mA          | PDIP-8L      |
| GS8202* | 18V            | 8W           | PWM            | 66KHz | 300mA          | PDIP-8L      |
| GS8203* | 18V            | 8W           | PWM            | 60KHz | 800mA          | PDIP-8L      |

## DC / DC SWITCHING REGULATORS

### Bipolar / Asynchronous / Buck Series

| GS P/N | Supply Voltage | Output Current | Output Voltage                                     | Switching Mode | Fosc   | Supply Current | Efficiency | Enable | Soft Start | Package Type         |
|--------|----------------|----------------|----------------------------------------------------|----------------|--------|----------------|------------|--------|------------|----------------------|
| GS2576 | 35V            | 3A             | Adj (Vref = 1.25V)<br>Fixed (1.8V, 2.5V, 3.3V, 5V) | PWM            | 52KHz  | 5mA            | 75%        | Y      | N          | TO-252-5L, TO-263-5L |
| GS5256 | 35V            | 3A             | Adj (Vref = 1.25V)<br>Fixed (1.8V, 2.5V, 3.3V, 5V) | PWM            | 150KHz | 5mA            | 75%        | Y      | N          | TO-263-5L, TO-220-5L |

### DC-DC / Asynchronous / Buck Series

| GS P/N  | Supply Voltage | Output Current | Output Voltage    | Switching Mode | Fosc   | Supply Current | Efficiency | Enable | Soft Start | Package Type          |
|---------|----------------|----------------|-------------------|----------------|--------|----------------|------------|--------|------------|-----------------------|
| GS5159* | 24V            | 1.5A           | Adj (Vref=0.8V)   | PWM            | 1.4MHz | 1mA            | 92%        | Y      | Y          | SOT-23-6L, TSOT-23-6L |
| GS5113  | 23V            | 3A             | Adj (Vref = 0.8V) | PWM            | 300KHz | 2mA            | 86%        | Y      | Y          | SOP-8L                |
| GS5143* | 23V            | 4A             | Adj (Vref = 0.8V) | PWM            | 300KHz | 2mA            | 87%        | Y      | Y          | SOP-8L                |
| GS5153* | 23V            | 5A             | Adj (Vref = 0.8V) | PWM            | 300KHz | 2mA            | 87%        | Y      | Y          | SOP-8L                |
| GS5163* | 23V            | 6A             | Adj (Vref = 0.8V) | PWM            | 300KHz | 2mA            | 87%        | Y      | Y          | DIP-8L                |
| GS5114  | 40V            | 2A             | Adj (Vref = 0.8V) | PWM            | 150KHz | 2mA            | 87%        | Y      | Y          | SOP-8L                |
| GS5115  | 40V            | 3.5A           | Adj (Vref = 0.8V) | PWM            | 150KHz | 2mA            | 87%        | Y      | Y          | SOP-8L                |

### DC-DC / Synchronous / Buck

| GS P/N | Supply Voltage | Output Current | Output Voltage      | Switching Mode | Fosc   | Supply Current | Efficiency | Enable | Soft Start | Package Type    |
|--------|----------------|----------------|---------------------|----------------|--------|----------------|------------|--------|------------|-----------------|
| GS5482 | 24V            | 2A             | Adj (Vref = 0.925V) | PWM            | 340KHz | 1.1mA          | 92%        | Y      | Y          | SOP-8L, PSOP-8L |
| GS5484 | 24V            | 3A             | Adj (Vref = 0.925V) | PWM            | 340KHz | 1.1mA          | 92%        | Y      | Y          | SOP-8L, PSOP-8L |

### DC-DC / Synchronous / Buck / High Frequency Series

| GS P/N | Supply Voltage | Output Current | Output Voltage    | Switching Mode | Fosc    | Supply Current | Efficiency | Enable | Soft Start | Package Type        |
|--------|----------------|----------------|-------------------|----------------|---------|----------------|------------|--------|------------|---------------------|
| GS5571 | 5.5V           | 600mA          | Adj (Vref = 0.6V) | PWM            | 1.5MHz  | 270uA          | 96%        | Y      | Y          | SOT-25              |
| GS5578 | 5.5V           | 800mA          | Adj (Vref = 0.6V) | PWM            | 1.5MHz  | 40uA           | 93%        | Y      | Y          | SOT-25              |
| GS5581 | 5.5V           | 1A             | Adj (Vref = 0.6V) | PWM            | 1.5MHz  | 40uA           | 98%        | Y      | Y          | SOT-25, DFN2x2-6L   |
| GS5583 | 5.5V           | 3A             | Adj (Vref = 0.6V) | PWM            | 1.5MHz  | 42uA           | 95%        | Y      | Y          | PSOP-8L, QFN3x3-16L |
| GS5584 | 5.5V           | 4A             | Adj (Vref = 0.6V) | PWM            | 1.25MHz | 550uA          | 95%        | Y      | Y          | DFN3x3-10L          |
| GS5586 | 5.5V           | 1A/1A          | Adj (Vref = 0.6V) | PWM            | 2.0MHz  | 37uA           | 98%        | Y      | Y          | DFN3x3-12L          |

### DC-DC / Boost Series

| GS P/N | Supply Voltage | Output Current | Output Voltage                  | Switching Mode | Fosc   | Supply Current | Efficiency | Enable | Soft Start | Package Type  |
|--------|----------------|----------------|---------------------------------|----------------|--------|----------------|------------|--------|------------|---------------|
| GS5842 | 0.9V~6.0V      | 600mA(SW)      | Fixed<br>(2.7V, 3.0V, 3.3V, 5V) | PFM            | 105KHz | 42uA           | 88%        | N      | N          | SOT-89, TO-92 |

\*Under Development

## SWITCHING CONTROLLERS

### Synchronous / Single CH / Single Phase / Buck Controller Series

| GS P/N   | Supply Voltage | Switch Current | Vout (Vref) | Switching Mode | Fosc            | Supply Current | Enable | U.V.L.O. | Package Type |
|----------|----------------|----------------|-------------|----------------|-----------------|----------------|--------|----------|--------------|
| GC31100* | 28V            | 4A             | 0.75V       | Selective      | 200KHz ~ 600KHz | 1250uA         | Y      | Y        | WQFN         |
| GC31101* | 28V            | 4A             | 0.75V       | Selective      | 200KHz ~ 600KHz | 1250uA         | Y      | Y        | WQFN         |

### Synchronous / Dual CH / Single Phase / Buck Controller Series

| GS P/N   | Supply Voltage | Switch Current | Vout (Vref) | Switching Mode | Fosc           | Supply Current | Enable | U.V.L.O. | Package Type |
|----------|----------------|----------------|-------------|----------------|----------------|----------------|--------|----------|--------------|
| GC32120* | 28V            | 4A / CH        | 3.3V / 5V   | Selective      | 200KHz~ 600KHz | 1mA            | Y      | Y        | WQFN         |

### Bipolar / Asynchronous / SMPS Controller Series

| GS P/N  | Supply Voltage | Switch Current | Vout (Vref) | Switching Mode | Fosc         | Supply Current | Enable | U.V.L.O. | Package Type      |
|---------|----------------|----------------|-------------|----------------|--------------|----------------|--------|----------|-------------------|
| GS34063 | 40V            | 1.5A           | 1.25V       | PWM            | 10KHz~100KHz | 4mA            | N      | N        | SOIC-8L , PDIP-8L |

### Bipolar / Asynchronous / High Frequency SMPS Controller Series

| GS P/N | Supply Voltage | Switch Current | Vout (Vref) | Switching Mode | Fosc        | Supply Current | Enable | U.V.L.O. | Package Type |
|--------|----------------|----------------|-------------|----------------|-------------|----------------|--------|----------|--------------|
| GS3800 | 15V            | 40mA           | 0.5V        | PWM            | 10KHz~ 1MHz | 10mA           | Y      | Y        | SOIC-8L      |

### USB Power Switch / Power Multiplexer for USB High

| GS P/N  | Supply Voltage | Switch Current            | RDS(ON)      | CH     | Quiescent Current | Vout Rising | Enable | U.V.L.O.  | Package Type                     |
|---------|----------------|---------------------------|--------------|--------|-------------------|-------------|--------|-----------|----------------------------------|
| GS9922* | 0.3V~6V        | -                         | -            | Multi  | -                 | -           | High   | 4.2V      | SOT-23-8L                        |
| GS9921  | 2.7V~5.5V      | 200mA / 1.0A              | 80mΩ / 200mΩ | Multi  | 50uA              | 1.3ms       | High   | 4.3V      | MSOP-8L, WDFN3x3-8L<br>SOT-23-8L |
| GS9121  | 2.7V~5.5V      | 0.6A / 1.2A / 1.7A / 2.3A | 90mΩ         | Single | 25uA              | 0.8ms       | High   | 1.8V(Min) | MSOP-8L, WDFN3x3-8L<br>SOT-23-5L |
| GS9111  | 2.7V~5.5V      | 0.6A / 1.2A / 1.7A / 2.3A | 90mΩ         | Single | 25uA              | 0.8ms       | Low    | 1.8V(Min) | MSOP-8L, WDFN3x3-8L<br>SOT-23-5L |
| GS9211  | 2.7V~5.5V      | 0.5A / 1.0A / 2.0A        | 90mΩ         | Dual   | 25uA              | 3.0ms       | Low    | 2.0V(Min) | MSOP-8L, WDFN3x3-8L              |
| GS9221  | 2.7V~5.5V      | 1.0A / 1.5A / 2.0A        | 90mΩ         | Dual   | 25uA              | 3.0ms       | High   | 2.0V(Min) | MSOP-8L, WDFN3x3-8L              |

### Load Switch

| GS P/N   | Supply Voltage | Switch Current | RDS(ON) | CH     | Stand By | Slew rate | Output Discharge | Package Type    |
|----------|----------------|----------------|---------|--------|----------|-----------|------------------|-----------------|
| GS9811C* | 0.9V~3.6V      | 2A             | 33mΩ    | Single | 0.1u     | 1ms       | Y                | SOT-23-6L , DFN |
| GS9819C* | 0.9V~3.6V      | 2A             | 33mΩ    | Single | 0.1u     | 20us      | Y                | SOT-23-6L , DFN |
| GS9821C* | 0.9V~3.6V      | 2A             | 33mΩ    | Single | 0.1u     | 1ms       | N                | SOT-23-6L , DFN |
| GS9829C* | 0.9V~3.6V      | 2A             | 33mΩ    | Single | 0.1u     | 20us      | N                | SOT-23-6L , DFN |

### USB Charger Switch

| GS P/N  | Supply Voltage | Switch Current | RDS(ON) | Con   | CDP | RDS(ON) Flatness | Package Type |
|---------|----------------|----------------|---------|-------|-----|------------------|--------------|
| GS9600* | 4.5V~5.5V      | 140uA          | 4.0Ω    | 4.0pF | Y   | 0.5Ω             | TDFN-8L      |

\*Under Development



## LINEAR POWER

### Bipolar / Voltage Reference Series

| GS P/N       | Supply Voltage | Output Current | Output Voltage     | Supply Current | Dropout Voltage | Enable | Soft Start | Power Good | Package Type             |
|--------------|----------------|----------------|--------------------|----------------|-----------------|--------|------------|------------|--------------------------|
| <b>GS431</b> | 37V            | 100mA          | Adj (Vref = 2.5V)  | 1mA            | NA              | N      | N          | N          | SOT-23 , SOIC-8L , TO-92 |
| <b>GS432</b> | 16V            | 100mA          | Adj (Vref = 1.24V) | 80uA           | NA              | N      | N          | N          | SOT-23 , SOIC-8L , TO-92 |

### Bipolar / Darlington Linear Voltage Regulator Series

| GS P/N         | Supply Voltage | Output Current | Output Voltage     | Supply Current | Dropout Voltage | Enable | Soft Start | Power Good | Package Type                        |
|----------------|----------------|----------------|--------------------|----------------|-----------------|--------|------------|------------|-------------------------------------|
| <b>GS78Lxx</b> | 30V            | 100mA          | Fixed (5V , 12V)   | 7mA            | 2V              | N      | N          | N          | SOT-89 , SOIC-8L , TO-92            |
| <b>GS7805L</b> | 15V            | 1A             | Fixed (5V)         | 10mA           | 1.7V            | N      | N          | N          | SOT-89 , SOT-223<br>TO-252 , TO-263 |
| <b>GS78xx</b>  | 35V            | 1A             | Fixed (5V , 12V)   | 7mA            | 2V              | N      | N          | N          | SOT-223 , TO-252 , TO-263           |
| <b>GS79Lxx</b> | -30V           | 100mA          | Fixed (-5V , -12V) | 7mA            | 2V              | N      | N          | N          | SOT-89 , SOIC-8L , TO-92            |
| <b>GS317</b>   | 40V            | 1.5A           | Adj (Vref = 1.25V) | 10mA           | 2.5V            | N      | N          | N          | SOT-223 , TO-252                    |

### Bipolar / NPN Voltage Regulators

| GS P/N         | Supply Voltage | Output Current | Output Voltage                           | Supply Current | Dropout Voltage | Enable | Soft Start | Power Good | Package Type              |
|----------------|----------------|----------------|------------------------------------------|----------------|-----------------|--------|------------|------------|---------------------------|
| <b>GS1116</b>  | 15V            | 800mA          | Adj (Vref = 1.25V)<br>Fixed (1.5V to 5V) | 10mA           | 1.3V            | N      | N          | N          | SOT-89 , SOT-223 , TO-252 |
| <b>GS1117A</b> | 15V            | 1A             | Adj (Vref = 1.25V)<br>Fixed (1.2V to 5V) | 10mA           | 1.3V            | N      | N          | N          | SOT-89 , SOT-223 , TO-252 |
| <b>GS1117C</b> | 15V            | 1A             | Adj (Vref = 1.25V)<br>Fixed (1.2V to 5V) | 10mA           | 1.3V            | N      | N          | N          | SOT-89 , SOT-223 , TO-252 |
| <b>GS1084L</b> | 7V             | 5A             | Adj (Vref = 1.25V)<br>Fixed (1.5V to 5V) | 10mA           | 1.3V            | N      | N          | N          | SOT-223 , TO-252 , TO-263 |
| <b>GS1085L</b> | 7V             | 3A             | Adj (Vref = 1.25V)<br>Fixed (1.5V to 5V) | 10mA           | 1.3V            | N      | N          | N          | SOT-223 , TO-252 , TO-263 |
| <b>GS1085C</b> | 7V             | 3A             | Adj (Vref = 1.25V)<br>Fixed (1.5V to 5V) | 10mA           | 1.3V            | N      | N          | N          | SOT-223 , TO-252 , TO-263 |
| <b>GS1581</b>  | 15V            | 5A             | Adj (Vref = 1.25V)<br>Fixed (1.5V to 5V) | 10mA           | 0.55V           | N      | N          | N          | TO-252-5L , TO-263-5L     |

### Bipolar / PNP / Linear Voltage Regulators

| GS P/N        | Supply Voltage | Output Current | Output Voltage     | Supply Current | Dropout Voltage | Enable | Soft Start | Power Good | Package Type |
|---------------|----------------|----------------|--------------------|----------------|-----------------|--------|------------|------------|--------------|
| <b>GS2612</b> | 20V            | 1A             | Adj (Vref = 1.24V) | 20mA           | 0.4V            | Y      | N          | N          | SOIC-8L      |
| <b>GS2615</b> | 20V            | 150mA          | Adj (Vref = 1.23V) | 5uA            | 0.28V           | Y      | N          | N          | SOT-23-5L    |

## CMOS / P-CH / Micro Power ( $I_Q < 100\mu A$ ) / Voltage Regulators

| GS P/N         | Supply Voltage | Output Current | Output Voltage                                                | Supply Current           | Dropout Voltage | PSRR @1KHz | Enable | Soft Start | Power Good | Package Type                          |
|----------------|----------------|----------------|---------------------------------------------------------------|--------------------------|-----------------|------------|--------|------------|------------|---------------------------------------|
| <b>GS2903</b>  | 6V             | 300mA          | Fixed<br>(1.5V, 1.8V, 2.5V, 2.8V, 3.3V)                       | 30uA                     | 400mV           | 60dB       | Y      | N          | N          | SOT-23 , SOT-25 , SOT-89              |
| <b>GS2906</b>  | 6V             | 600mA          | Adj (Vref = 1.25V)<br>Fixed<br>(1.5V, 1.8V, 2.5V, 2.8V, 3.3V) | 50uA                     | 600mV           | 50dB       | Y      | N          | N          | SOT-25 , SOT-89 , SOT-223             |
| <b>GS2915</b>  | 6V             | 150mA          | Fixed<br>(1.5V, 1.8V, 2.5V, 2.8V, 3.3V)                       | 10uA                     | 165mV           | 50dB       | Y      | N          | N          | SOT-25                                |
| <b>GS2916*</b> | 25V            | 150mA          | Adj (Vref = 1.24V)                                            | 70uA@<br>$I_{OUT}=0.1mA$ | 1.9V            | -          | Y      | Y          | N          | SOT-25 , SOT-89 , SOP-8L              |
| <b>GS2900</b>  | 6V             | 1.5A           | Adj (Vref = 0.8V)<br>Fixed<br>(1.5V, 1.8V, 2.5V, 2.8V, 3.3V)  | 50uA                     | 700mV           | 50dB       | Y      | Y          | N          | SOIC-8L , PSOP-8L<br>SOT-223 , TO-252 |

## CMOS / P-CH / Dual Output / High-PSRR / Voltage Regulators

| GS P/N        | Supply Voltage | Output Current | Output Voltage                                     | Supply Current | Dropout Voltage | PSRR @1KHz | Enable | Soft Start | Package Type |
|---------------|----------------|----------------|----------------------------------------------------|----------------|-----------------|------------|--------|------------|--------------|
| <b>GS6203</b> | 6V             | 300mA / CH     | Fixed<br>(1.8 / 2.8V , 1.8 / 3.3V ,<br>2.8 / 3.3V) | 250uA / CH     | 200mV           | 70dB       | Y      | Y          | SOT-26       |

## CMOS / P-CH / High-PSRR / Voltage Regulators

| GS P/N        | Supply Voltage | Output Current | Output Voltage                                      | Supply Current | Dropout Voltage | PSRR @1KHz | Enable | Soft Start | Power Good | Package Type              |
|---------------|----------------|----------------|-----------------------------------------------------|----------------|-----------------|------------|--------|------------|------------|---------------------------|
| <b>GS2810</b> | 7V             | 1A             | Adj (Vref = 1.25V)                                  | 120uA          | 1000mV          | 70dB       | N      | N          | N          | SOT-89 , SOT-223 , TO-252 |
| <b>GS2813</b> | 6V             | 300mA          | Adj (Vref = 0.8V)<br>Fixed (1.5V, 1.8V, 2.8V, 3.3V) | 25uA           | 220mV           | 70dB       | N      | N          | N          | SC-70 , SOT-23 , SC82-4L  |

## CMOS / N-CH / Dual Input / Ultra Low Dropout / Voltage Regulators

| GS P/N         | Supply Voltage | Output Current (MAX) | Output Voltage    | Quiescent Current | Dropout Voltage | Soft Start | Enable | Power Good | Package Type         |
|----------------|----------------|----------------------|-------------------|-------------------|-----------------|------------|--------|------------|----------------------|
| <b>GS2211*</b> | 6V             | 1A                   | Adj (Vref = 0.8V) | 1.0mA             | 180mV           | 1.5ms      | Y      | Y          | PSOP-8L , DFN3x3-10L |
| <b>GS2221</b>  | 6V             | 2A                   | Adj (Vref = 0.8V) | 1.0mA             | 200mV           | 1.5ms      | Y      | Y          | PSOP-8L , DFN3x3-10L |
| <b>GS2231</b>  | 6V             | 3A                   | Adj (Vref = 0.8V) | 1.0mA             | 250mV           | 1.5ms      | Y      | Y          | PSOP-8L , DFN3x3-10L |
| <b>GS2251</b>  | 6V             | 5A                   | Adj (Vref = 0.8V) | 0.58mA            | 300mV           | 1.5ms      | Y      | Y          | PSOP-8L , DFN3x3-10L |
| <b>GS2220</b>  | 6V             | 2A                   | Adj (Vref = 0.8V) | 1.0mA             | 200mV           | 1.5ms      | Y      | Y          | PSOP-8L              |
| <b>GS2230</b>  | 6V             | 3A                   | Adj (Vref = 0.8V) | 1.0mA             | 250mV           | 1.5ms      | Y      | Y          | PSOP-8L              |
| <b>GS2250</b>  | 6V             | 5A                   | Adj (Vref = 0.8V) | 0.58mA            | 300mV           | 1.5ms      | Y      | Y          | PSOP-8L              |

\*Under Development



## CMOS / Ultra Low Dropout Liner Regulator Controller

| GS P/N         | Supply Voltage | Output Current | Output Voltage                                                       | Supply Current | Dropout Voltage | PSRR @1KHz | Enable | Soft Start | Power Good | Package Type |
|----------------|----------------|----------------|----------------------------------------------------------------------|----------------|-----------------|------------|--------|------------|------------|--------------|
| <b>GS1301*</b> | 6V             | 5A             | Adj (Vref = 0.8V)<br>Fixed (1V, 1.05V, 1.2V, 1.5V, 1.8V, 2.5V, 3.3V) | 3.2mA          | 300mV           | 50dB       | Y      | Y          | N          | SOT-23-6L    |

## DDR Terminator

| GS P/N         | Supply Voltage | Drive Current | Vref (Enable) | I (stand by) | DDR Type     | Package |
|----------------|----------------|---------------|---------------|--------------|--------------|---------|
| <b>GS9020</b>  | 6V             | 2A            | 0.75V         | 50uA         | I / II / III | PSOP-8L |
| <b>GS9021*</b> | 6V             | 1.8A          | 0.55V         | 20uA         | II/III/IV    | PSOP-8L |

## OP Amplifiers

| GS P/N        | Supply Voltage | CH | Gain Band width | Output Current | Supply Current | Input Bias Current | Offset Voltage | Package Type |
|---------------|----------------|----|-----------------|----------------|----------------|--------------------|----------------|--------------|
| <b>GSV321</b> | 5V             | 1  | 1 MHz           | 20mA           | 80uA           | 11nA               | 3mV            | SOT-25       |
| <b>GS321</b>  | 32V (+/- 16V)  | 1  | 1 MHz           | 20mA           | 1mA            | 20nA               | 3mV            | SOT-25       |
| <b>GS358</b>  | 32V (+/- 16V)  | 2  | 1 MHz           | 20mA / CH      | 1mA            | 20nA               | 3mV            | SOIC-8L      |
| <b>GS324</b>  | 32V (+/- 16V)  | 4  | 1 MHz           | 20mA / CH      | 3mA            | 20nA               | 3mV            | SOIC-14L     |
| <b>GS4558</b> | 30V (+/- 15V)  | 2  | 3 MHz           | -              | 3mA            | 140nA              | 0.5mV          | SOIC-8L      |

## Comparators

| GS P/N        | Supply Voltage | CH | Response Time | Output Current | Supply Current | Input Bias Current | Offset Voltage | Package Type           |
|---------------|----------------|----|---------------|----------------|----------------|--------------------|----------------|------------------------|
| <b>GS391</b>  | 36V            | 1  | 1.3us         | 6mA            | 0.8mA          | 25nA               | 2mV            | SOT-25                 |
| <b>GS393</b>  | 10V            | 2  | 1.3us         | 6mA / CH       | 0.8mA          | 25nA               | 2mV            | SOIC-8L                |
| <b>GS339</b>  | 36V            | 4  | 1.3us         | 6mA / CH       | 0.8mA          | 25nA               | 2mV            | SOIC-14L               |
| <b>GS337*</b> | 8V             | 2  | 1.8us         | 45mA           | 7.0uA          | 10nA               | 1.5mV          | TDFN2x2-8L , SOT-23-8L |

\*Under Development



# Power Management

# Solutions Provider

# SEMICONDUCTOR



## WHITE LED DRIVER

### Switching Mode (String)

| GS P/N         | Supply Voltage | Number of LEDs | LED Channels | LEDs Per CH | Output Current Per CH | Supply Current (Istby) | Switch Current | Current Maching | EN | OVP | Package Type |
|----------------|----------------|----------------|--------------|-------------|-----------------------|------------------------|----------------|-----------------|----|-----|--------------|
| <b>GS5901*</b> | 2.5V ~ 6.0V    | 3              | 1            | 3           | -                     | 1uA                    | 300mA          | -               | Y  | Y   | SOT-26       |

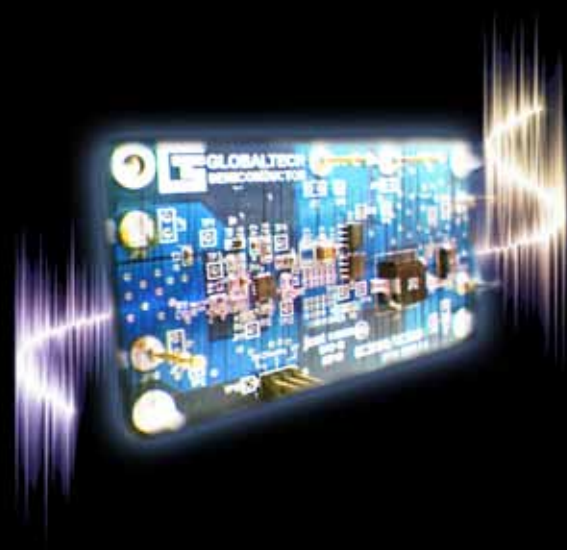
### Switching Mode (String)

| GS P/N         | Supply Voltage | Number of LEDs | LED Channels | LEDs Per CH | Output Current Per CH | Supply Current (Istby) | Switch Current | Current Maching | EN | OVP | Package Type |
|----------------|----------------|----------------|--------------|-------------|-----------------------|------------------------|----------------|-----------------|----|-----|--------------|
| <b>GS5913*</b> | 2.7V ~ 5.5V    | 3              | 3            | 1           | 20mA                  | 1uA                    | -              | 3%              | Y  | N   | SOT-26       |
| <b>GS5914*</b> | 2.7V ~ 5.5V    | 4              | 4            | 1           | 20mA                  | 1uA                    | -              | 3%              | Y  | N   | SOT-26       |

### Switching Mode / Charge Pump (parallel)

| GS P/N         | Supply Voltage | Number of LEDs | LED Channels | LEDs Per CH | Output Current Per CH | Supply Current (Istby) | Switch Current | Current Maching | EN | OVP | Package Type |
|----------------|----------------|----------------|--------------|-------------|-----------------------|------------------------|----------------|-----------------|----|-----|--------------|
| <b>GS5933*</b> | 2.7V ~ 5.5V    | 3              | 3            | 1           | 25mA                  | <1uA                   | 1uA            | 0.5%            | Y  | N   | QFN-16L      |

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## INTERFACE & PROTECTION

### Voltage Detectors

| GS P/N | Supply Voltage | Output Current | Detect Voltage           | Supply Current | Package Type |
|--------|----------------|----------------|--------------------------|----------------|--------------|
| GS71xx | 22V            | 50mA           | 2.4V to 7.0V (Each 0.1V) | 3uA            | SOT-23       |
| GS72xx | 22V            | 50mA           | 2.4V to 7.0V (Each 0.1V) | 3uA            | SOT-23       |
| GS73xx | 10V            | 50mA           | 1.0V to 6.0V (Each 0.1V) | 1uA            | SOT-23       |
| GS74xx | 10V            | 50mA           | 1.0V to 6.0V (Each 0.1V) | 1uA            | SOT-23       |

### Interface

| GS P/N  | Supply Voltage | Driver Current | Supply Current | Receiver TPLH / TPHL | Receiver TTLH / TTHL | Driver TPLH / TPHL | Driver TTLH / TTHL | Package Type                  |
|---------|----------------|----------------|----------------|----------------------|----------------------|--------------------|--------------------|-------------------------------|
| GS75232 | 15V            | 10mA           | 30mA           | 150ns / 50ns         | 175ns / 20ns         | 500ns / 175ns      | 100ns / 75ns       | SOIC-20L, SSOP-20L, TSSOP-20L |

### ESD & Latch Up Protection

| GS P/N   | CH | VBR(Min) | VRWM(Max) | IR(Max) | RPK (8/20 us) | IPP(8/20 us) | Cj (TYP) | Package Type |
|----------|----|----------|-----------|---------|---------------|--------------|----------|--------------|
| GSE9X5VU | 1  | 6V       | 5V        | 1uA     | 180W          | 7A           | 0.5pF    | FBP-02C      |
| GSE0592  | 1  | 6V       | 5V        | 1uA     | 250W          | 7A           | 5pF      | SOD-923      |
| GSE0572  | 1  | 6V       | 5V        | 1uA     | 250W          | 7A           | 5pF      | SOD-723      |
| GSE0573  | 1  | 6V       | 5V        | 1uA     | 250W          | 7A           | 2pF      | SOD-723      |
| GSE0521  | 1  | 6V       | 5V        | 1uA     | 250W          | 7A           | 5pF      | SOD-523      |
| GSE5Z5VU | 1  | 6V       | 5V        | 1uA     | 250W          | 7A           | 0.5pF    | SOD-523      |
| GSE6V8UN | 2  | 6V       | 5V        | 1uA     | 180W          | 5A           | 0.7pF    | SOT-353      |
| GSE6V8UW | 4  | 6V       | 5V        | 5uA     | 250W          | 5A           | 0.7pF    | SOT-363      |
| GSE6V8UF | 4  | 6V       | 5V        | 5uA     | 250W          | 5A           | 0.7pF    | SOT-26       |
| GSE6V8UD | 4  | 6V       | 5V        | 1uA     | 180W          | 7A           | 0.35pF   | DFN-10L      |
| GSE6V8UH | 4  | 6V       | 5V        | 1uA     | 180W          | 7A           | 0.35pF   | MSOP-10L     |

# MOSFET

## Package SOT-23

| GS P/N    | Type | VDS | VGS | IDS   | VTH  | RDS(ON) @ VGS |       |       |       |       | CISS<br>(TYP) | CRSS<br>(TYP) | Qg<br>(TYP) | Package Type                                                                          |
|-----------|------|-----|-----|-------|------|---------------|-------|-------|-------|-------|---------------|---------------|-------------|---------------------------------------------------------------------------------------|
|           |      |     |     |       |      | 10V           | 4.5V  | 2.5V  | 1.8V  | 1.25V |               |               |             |                                                                                       |
| GSM2312A  | N    | 20V | 12V | 2.8A  | 0.8V | -             | 45mΩ  | 48mΩ  | 64mΩ  | -     | 850pF         | 60pF          | 8.2nC       |  |
| GSM3414A  | N    | 20V | 12V | 2.4A  | 0.8V | -             | 70mΩ  | 80mΩ  | 100mΩ | -     | 340pF         | 33pF          | 4.2nC       |                                                                                       |
| GSM2302AS | N    | 20V | 12V | 2.4A  | 1.0V | -             | 90mΩ  | 110mΩ | -     | -     | 340pF         | 33pF          | 5.4nC       |                                                                                       |
| GSM3402A  | N    | 30V | 12V | 2.4A  | 1.0V | 82mΩ          | 87mΩ  | 110mΩ | -     | -     | 280pF         | 20pF          | 2.3nC       |                                                                                       |
| GSM3400AS | N    | 30V | 12V | 2.8A  | 1.1V | 50mΩ          | 55mΩ  | 75mΩ  | -     | -     | 320pF         | 30pF          | 3.0nC       |                                                                                       |
| GSM3406A  | N    | 30V | 20V | 4.0A  | 2.0V | 48mΩ          | 58mΩ  | -     | -     | -     | 320pF         | 30pF          | 3.0nC       |                                                                                       |
| GSM3406AS | N    | 30V | 20V | 2.8A  | 2.1V | 45mΩ          | 55mΩ  | -     | -     | -     | 320pF         | 30pF          | 3.0nC       |                                                                                       |
| GSM7002K  | N    | 60V | 20V | 0.64A | 2.5V | 2.0Ω          | 4.0Ω  | -     | -     | -     | 32pF          | 6pF           | 1.0nC       |                                                                                       |
| GSM7002   | N    | 60V | 20V | 0.3A  | 2.5V | 6.0Ω          | 7.0Ω  | -     | -     | -     | 43pF          | 6pF           | 1.4nC       |                                                                                       |
| GSM3413A  | P    | 20V | 12V | -2.6A | 0.7V | -             | 110mΩ | 150mΩ | 205mΩ | -     | 415pF         | 87pF          | 5.8nC       |                                                                                       |
| GSM2367AS | P    | 20V | 12V | -2.8A | 1.0V | -             | 80mΩ  | 98mΩ  | 130mΩ | -     | 450pF         | 55pF          | 10nC        |                                                                                       |
| GSM2301A  | P    | 20V | 12V | -2.6A | 1.0V | -             | 120mΩ | 170mΩ | -     | -     | 415pF         | 87pF          | 5.8nC       |                                                                                       |
| GSM2301AS | P    | 20V | 12V | -2.4A | 1.0V | -             | 125mΩ | 170mΩ | -     | -     | 415pF         | 87pF          | 5.8nC       |                                                                                       |
| GSM3401AS | P    | 30V | 12V | -2.4A | 1.1V | 70mΩ          | 80mΩ  | 105mΩ | -     | -     | 450pF         | 55pF          | 10nC        |                                                                                       |
| GSM3407AS | P    | 30V | 20V | -2.8A | 2.5V | 77mΩ          | 102mΩ | -     | -     | -     | 450pF         | 55pF          | 10nC        |                                                                                       |
| GSM9105B  | P    | 20V | 12V | -2.6A | 0.7V | -             | 110mΩ | 150mΩ | 205mΩ | 175Ω  | 415pF         | 87pF          | 5.8nC       |                                                                                       |
| GSM9101   | P    | 20V | 12V | -2.6A | 1.0V | -             | 120mΩ | 170mΩ | -     | -     | 415pF         | 87pF          | 5.8nC       |                                                                                       |
| GSM9101B  | P    | 20V | 12V | -2.4A | 1.0V | -             | 125mΩ | 170mΩ | -     | -     | 415pF         | 87pF          | 5.8nC       |                                                                                       |
| GSM9106B  | N    | 20V | 12V | 2.4A  | 0.8V | -             | 70mΩ  | 80mΩ  | 100mΩ | -     | 340pF         | 33pF          | 4.2nC       |                                                                                       |
| GSM9102B  | N    | 20V | 12V | 2.4A  | 1.0V | -             | 90mΩ  | 110mΩ | -     | -     | 340pF         | 33pF          | 5.4nC       |                                                                                       |



## Package SOT-23-3L

| GS P/N   | Type | VDS | VGS | IDS    | VTH  | RDS(ON) @ VGS |       |       |       | CISS<br>(TYP) | CRSS<br>(TYP) | Qg<br>(TYP) | Package Type                                                                          |
|----------|------|-----|-----|--------|------|---------------|-------|-------|-------|---------------|---------------|-------------|---------------------------------------------------------------------------------------|
|          |      |     |     |        |      | 10V           | 4.5V  | 2.5V  | 1.8V  |               |               |             |                                                                                       |
| GSM2312  | N    | 20V | 12V | 4.0A   | 0.8V | -             | 36mΩ  | 40mΩ  | 52mΩ  | 850pF         | 60pF          | 8.2nC       |  |
| GSM3414  | N    | 20V | 12V | 3.6A   | 0.8V | -             | 58mΩ  | 68mΩ  | 88mΩ  | 340pF         | 33pF          | 4.2nC       |                                                                                       |
| GSM9106  | N    | 20V | 12V | 3.6A   | 0.8V | -             | 58mΩ  | 68mΩ  | 88mΩ  | 340pF         | 33pF          | 4.2nC       |                                                                                       |
| GSM3416  | N    | 20V | 12V | 4.0A   | 1.0V | -             | 26mΩ  | 30mΩ  | 36mΩ  | 1050pF        | 115pF         | 13nC        |                                                                                       |
| GSM3414S | N    | 20V | 12V | 4.0A   | 1.0V | -             | 50mΩ  | 60mΩ  | 105mΩ | 340pF         | 33pF          | 5.4nC       |                                                                                       |
| GSM9102  | N    | 20V | 12V | 3.6A   | 1.0V | -             | 85mΩ  | 100mΩ | -     | 340pF         | 33pF          | 5.4nC       |                                                                                       |
| GSM9108  | N    | 30V | 12V | 4A     | 1.1V | 42mΩ          | 44mΩ  | 50mΩ  | -     | 320pF         | 30pF          | 3.0nC       |                                                                                       |
| GSM3406  | N    | 30V | 20V | 4.0A   | 2.0V | 42mΩ          | 52mΩ  | -     | -     | 320pF         | 30pF          | 3.0nC       |                                                                                       |
| GSM3406S | N    | 30V | 20V | 4.0A   | 2.1V | 40mΩ          | 50mΩ  | -     | -     | 320pF         | 30pF          | 3.0nC       |                                                                                       |
| GSM9104  | N    | 30V | 20V | 3.6A   | 2.2V | 78mΩ          | 105mΩ | -     | -     | 230pF         | 20pF          | 2.0nC       |                                                                                       |
| GSM9110  | N    | 40V | 12V | 4.0A   | 1.2V | 56mΩ          | 62mΩ  | 95mΩ  | -     | 500pF         | 45pF          | 10nC        |                                                                                       |
| GSM3413  | P    | 20V | 12V | -3.2A  | 0.7V | -             | 100mΩ | 130mΩ | 195mΩ | 415pF         | 87pF          | 5.8nC       |                                                                                       |
| GSM9105  | P    | 20V | 12V | -3.2A  | 0.7V | --            | 100mΩ | 130mΩ | 195mΩ | 415pF         | 87pF          | 5.8nC       |                                                                                       |
| GSM2311  | P    | 20V | 12V | -4.0A  | 0.8V | -             | 56mΩ  | 70mΩ  | 96mΩ  | 780pF         | 55pF          | 8.0nC       |                                                                                       |
| GSM2367S | P    | 20V | 12V | -3.0A  | 1.0V | -             | 65mΩ  | 80mΩ  | 105mΩ | 450pF         | 55pF          | 10nC        |                                                                                       |
| GSM2301  | P    | 20V | 12V | -3.0A  | 1.0V | -             | 105mΩ | 155mΩ | -     | 415pF         | 87pF          | 5.8nC       |                                                                                       |
| GSM2301S | P    | 20V | 12V | -3.0A  | 1.0V | -             | 120mΩ | 170mΩ | -     | 415pF         | 87pF          | 5.8nC       |                                                                                       |
| GSM9107  | P    | 30V | 12V | -4.0xA | 1.1V | 65mΩ          | 80mΩ  | 105mΩ | -     | 450pF         | 55pF          | 10nC        |                                                                                       |
| GSM9103  | P    | 30V | 20V | -3.6A  | 2.6V | 150mΩ         | 235mΩ | -     | -     | 170pF         | 30pF          | 2.5nC       |                                                                                       |
| GSM9109  | P    | 40V | 20V | -3.5A  | 2.5V | 96mΩ          | 110mΩ | -     | -     | 500pF         | 50pF          | 9.0nC       |                                                                                       |



## Package SOT-363

| GS P/N   | Type | VDS | VGS | IDS   | VTH            | RDS(ON) @ VGS |                |                |                 | CISS (TYP) | CRSS (TYP) | Qg (TYP)        | Package Type                                                                        |
|----------|------|-----|-----|-------|----------------|---------------|----------------|----------------|-----------------|------------|------------|-----------------|-------------------------------------------------------------------------------------|
|          |      |     |     |       |                | 10V           | 4.5V           | 2.5V           | 1.8V            |            |            |                 |                                                                                     |
| GSM7002T | N/N  | 60V | 20V | 0.64A | 1.7V           | 2.0Ω          | 4.0Ω           | -              | -               | 32pF       | 6pF        | 1.0nC           |  |
| GSM1563  | N/P  | 20V | 12V | 1.0A  | 1.0V<br>-1.0V  | -             | 280mΩ<br>600mΩ | 340mΩ<br>840mΩ | 580mΩ<br>1440mΩ | -          | -          | 1.06nC<br>1.0nC |                                                                                     |
| GSM6332  | N/P  | 20V | 12V | 1.0A  | -1.0V<br>-1.0V | -             | 280mΩ<br>600mΩ | 340mΩ<br>800mΩ | 580mΩ<br>1440mΩ | -          | -          | 1.06nC<br>1.0nC |                                                                                     |

## Package TSOP-6P

| GS P/N  | Type | VDS | VGS | IDS          | VTH            | RDS(ON) @ VGS |              |               |               | CISS (TYP) | CRSS (TYP) | Qg (TYP) | Package Type                                                                          |
|---------|------|-----|-----|--------------|----------------|---------------|--------------|---------------|---------------|------------|------------|----------|---------------------------------------------------------------------------------------|
|         |      |     |     |              |                | 10V           | 4.5V         | 2.5V          | 1.8V          |            |            |          |                                                                                       |
| GSM6405 | P    | 30V | 20V | -5A          | 2.5V           | 55mΩ          | 85mΩ         | -             | -             | 450pF      | 55pF       | 10nC     |  |
| GSM8205 | N/N  | 20V | 12V | 5A           | 0.8V           | -             | 29mΩ         | 37mΩ          | 50mΩ          | 850pF      | 60pF       | 8.2nC    |                                                                                       |
| GSM6562 | N/N  | 30V | 12V | 3.6A         | 1.2V           | 70mΩ          | 78mΩ         | 95mΩ          | -             | 280pF      | 20pF       | 2.3nC    |                                                                                       |
| GSM6561 | N/N  | 30V | 20V | 3.6A         | 2.5V           | 75mΩ          | 102mΩ        | -             | -             | 280pF      | 20pF       | 2.3nC    |                                                                                       |
| GSM6604 | N/P  | 20V | 12V | 1.0A<br>0.8A | -3.4V<br>-2.8V | -             | 50mΩ<br>85mΩ | 60mΩ<br>110mΩ | 75mΩ<br>130mΩ | -          | -          | 4.8nC    |                                                                                       |
| GSM3981 | P/P  | 20V | 12V | -3.2A        | 0.7V           | -             | 100mΩ        | 135mΩ         | 190mΩ         | 415pF      | 87pF       | 5.8nC    |                                                                                       |
| GSM6801 | P/P  | 30V | 12V | -3.8A        | 1.4V           | 135mΩ         | 175mΩ        | 245mΩ         | -             | 230pF      | 25pF       | 4.0nC    |                                                                                       |
| GSM3993 | P/P  | 30V | 20V | -3.6A        | 2.6V           | 150mΩ         | 235mΩ        | -             | -             | 170pF      | 30pF       | 2.5nC    |                                                                                       |

## Package TSSOP-6P

| GS P/N   | Type | VDS | VGS | IDS  | VTH  | RDS(ON) @ VGS |      |      |      | CISS (TYP) | CRSS (TYP) | Qg (TYP) | Package Type                                                                          |
|----------|------|-----|-----|------|------|---------------|------|------|------|------------|------------|----------|---------------------------------------------------------------------------------------|
|          |      |     |     |      |      | 10V           | 4.5V | 2.5V | 1.8V |            |            |          |                                                                                       |
| GSM8822S | N/N  | 20V | 12V | 6.5A | 1.0V | 32mΩ          | 35mΩ | -    | -    | 700pF      | 45pF       | 650nC    |  |

## Package TSSOP-8P

| GS P/N  | Type | VDS | VGS | IDS  | VTH  | RDS(ON) @ VGS |      |      |      | CISS (TYP) | CRSS (TYP) | Qg (TYP) | Package Type                                                                          |
|---------|------|-----|-----|------|------|---------------|------|------|------|------------|------------|----------|---------------------------------------------------------------------------------------|
|         |      |     |     |      |      | 10V           | 4.5V | 2.5V | 1.8V |            |            |          |                                                                                       |
| GSM8822 | N/N  | 20V | 12V | 7.2A | 0.8V | -             | 28mΩ | 32mΩ | 45mΩ | 700pF      | 45pF       | 650pC    |  |



## Package SOT-252-2L

| GS P/N   | Type | VDS | VGS | IDS    | VTH  | RDS(ON) @ VGS |        |       |      | CISS<br>(TYP) | CRSS<br>(TYP) | Qg<br>(TYP) | Package Type                                                                        |
|----------|------|-----|-----|--------|------|---------------|--------|-------|------|---------------|---------------|-------------|-------------------------------------------------------------------------------------|
|          |      |     |     |        |      | 10V           | 4.5V   | 2.5V  | 1.8V |               |               |             |                                                                                     |
| GSM3484  | N    | 30V | 12V | 25A    | 1.8V | 15mΩ          | 18mΩ   | -     | -    | -             | -             | -           |  |
| GSM3025S | N    | 30V | 12V | 22A    | 1.1V | 32mΩ          | 36mΩ   | 42mΩ  | -    | -             | -             | -           |                                                                                     |
| GSM3015S | N    | 30V | 20V | 75A    | 2.0V | 5.1mΩ         | 6.8mΩ  | -     | -    | -             | -             | -           |                                                                                     |
| GSM3006S | N    | 30V | 20V | 75A    | 2.0V | 6mΩ           | 9mΩ    | -     | -    | -             | -             | -           |                                                                                     |
| GSM3016S | N    | 30V | 20V | 75A    | 2.0V | 6mΩ           | 10mΩ   | -     | -    | -             | -             | -           |                                                                                     |
| GSM3009S | N    | 30V | 20V | 60A    | 2.0V | 8.5mΩ         | 11.5mΩ | -     | -    | 1350pF        | 95pF          | 8nC         |                                                                                     |
| GSM3019S | N    | 30V | 20V | 60A    | 2.0V | 9mΩ           | 13mΩ   | -     | -    | -             | -             | -           |                                                                                     |
| GSM3030  | N    | 30V | 20V | 22A    | 2.0V | 30mΩ          | 40mΩ   | -     | -    | -             | -             | -           |                                                                                     |
| GSM4804  | N    | 40V | 20V | 18A    | 2.0V | 48mΩ          | 70mΩ   | -     | -    | 850pF         | 75pF          | 10nC        |                                                                                     |
| GSM2604  | N    | 40V | 20V | 25A    | 3.0V | 22mΩ          | 40mΩ   | -     | -    | -             | -             | -           |                                                                                     |
| GSM9971  | N    | 60V | 20V | 25A    | 2.5V | 42mΩ          | 50mΩ   | -     | -    | -             | -             | -           |                                                                                     |
| GSM3050S | P    | 30V | 12V | -15.0A | 1.1V | 60mΩ          | 72mΩ   | 108mΩ | -    | -             | -             | -           |                                                                                     |
| GSM3804  | P    | 40V | 20V | -22.0A | 3.0V | 38mΩ          | 54mΩ   | -     | -    | -             | -             | -           |                                                                                     |

## Package SOT-523

| GS P/N   | Type | VDS | VGS | IDS   | VTH  | RDS(ON) @ VGS |       |       |       | CISS<br>(TYP) | CRSS<br>(TYP) | Qg<br>(TYP) | Package Type                                                                          |
|----------|------|-----|-----|-------|------|---------------|-------|-------|-------|---------------|---------------|-------------|---------------------------------------------------------------------------------------|
|          |      |     |     |       |      | 10V           | 4.5V  | 2.5V  | 1.8V  |               |               |             |                                                                                       |
| GSM1012E | N    | 20V | 12V | 0.7A  | 0.8V | -             | 360mΩ | 420mΩ | 560mΩ | 70pF          | 8pF           | 1.06nC      |  |
| GSM1012  | N    | 20V | 12V | 0.65A | 1.0V | -             | 380mΩ | 450mΩ | 800mΩ | -             | -             | 1.2nC       |                                                                                       |
| GSM1032  | N    | 30V | 12V | 0.7A  | 1.0V | -             | 440mΩ | 500mΩ | 750mΩ | 85pF          | 15pF          | 1.4nC       |                                                                                       |

## Package SOT-563

| GS P/N   | Type | VDS | VGS | IDS  | VTH  | RDS(ON) @ VGS |       |       |       | CISS<br>(TYP) | CRSS<br>(TYP) | Qg<br>(TYP) | Package Type                                                                          |
|----------|------|-----|-----|------|------|---------------|-------|-------|-------|---------------|---------------|-------------|---------------------------------------------------------------------------------------|
|          |      |     |     |      |      | 10V           | 4.5V  | 2.5V  | 1.8V  |               |               |             |                                                                                       |
| GSM1024  | N/N  | 20V | 12V | 0.7A | 1.0V | -             | 360mΩ | 420mΩ | 560mΩ | 70pF          | 8pF           | 1.06nC      |  |
| GSM1024E | N/N  | 20V | 12V | 0.7A | 0.8V | -             | 360mΩ | 420mΩ | 560mΩ | 70pF          | 8pF           | 1.06nC      |                                                                                       |

## Package SOP-8P

| GS P/N    | Type | VDS | VGS | IDS          | VTH           | RDS(ON) @ VGS |              |      |      | CISS<br>(TYP) | CRSS<br>(TYP) | Qg<br>(TYP) | Package Type                                                                          |
|-----------|------|-----|-----|--------------|---------------|---------------|--------------|------|------|---------------|---------------|-------------|---------------------------------------------------------------------------------------|
|           |      |     |     |              |               | 10V           | 4.5V         | 2.5V | 1.8V |               |               |             |                                                                                       |
| GSM4422   | N    | 30V | 12V | 6.8A         | 1.0V          | 36mΩ          | 42mΩ         | 50mΩ | -    | 520pF         | 40pF          | 4nC         |  |
| GSM4134   | N    | 30V | 20V | 12A          | 1.3V          | 15mΩ          | 20mΩ         | -    | -    | 800pF         | 70pF          | 8nC         |                                                                                       |
| GSM4412   | N    | 30V | 20V | 7.6A         | 2.0V          | 35mΩ          | 42mΩ         | -    | -    | 520pF         | 40pF          | 4nC         |                                                                                       |
| GSM4822S  | N    | 30V | 20V | 6.0A         | 2.1V          | 30mΩ          | 42mΩ         | -    | -    | 700pF         | 45pF          | 8nC         |                                                                                       |
| GSM4822WS | N    | 30V | 20V | 6A           | 2.1V          | 34mΩ          | 44mΩ         | -    | -    | 700pF         | 45pF          | 8nC         |                                                                                       |
| GSM4424   | N    | 40V | 20V | 8A           | 3V            | 24mΩ          | 44mΩ         | -    | -    | 850pF         | 75pF          | 10nC        |                                                                                       |
| GSM4440   | N    | 60V | 20V | 6.8A         | 2.5V          | 42mΩ          | 50mΩ         | -    | -    | 890pF         | 48pF          | 10nC        |                                                                                       |
| GSM4435B  | P    | 30V | 20V | -10A         | 1.6V          | 24mΩ          | 30mΩ         | -    | -    | 1850pF        | 335pF         | 20nC        |                                                                                       |
| GSM4435   | P    | 30V | 20V | -10A         | 1.8V          | 28mΩ          | 37mΩ         | -    | -    | 950pF         | 175pF         | 10nC        |                                                                                       |
| GSM9435   | P    | 30V | 20V | -6.0A        | 2.5V          | 52mΩ          | 76mΩ         | -    | -    | 500pF         | 55pF          | 10nC        |                                                                                       |
| GSM4637   | P    | 30V | 20V | -6.8A        | 3V            | 37mΩ          | 54mΩ         | -    | -    | 1100pF        | 115pF         | 13nC        |                                                                                       |
| GSM4214   | N/N  | 30V | 20V | 9A           | 1.8V          | 16mΩ          | 20mΩ         | -    | -    | 800pF         | 70pF          | 8nC         |                                                                                       |
| GSM4210   | N/N  | 30V | 20V | 6.8A         | 2.0V          | 35mΩ          | 42mΩ         | -    | -    | 520pF         | 40pF          | 4nC         |                                                                                       |
| GSM4936S  | N/N  | 30V | 20V | 5.4A         | 2.1V          | 30mΩ          | 42mΩ         | -    | -    | 700pF         | 45pF          | 8nC         |                                                                                       |
| GSM4936WS | N/N  | 30V | 20V | 5.4A         | 2.1V          | 36mΩ          | 46mΩ         | -    | -    | 700pF         | 45pF          | 8nC         |                                                                                       |
| GSM4972   | N/N  | 30V | 20V | 8.5A         | 3.0V          | 14mΩ          | 18mΩ         | -    | -    | 1350pF        | 150pF         | 16nC        |                                                                                       |
| GSM4924   | N/N  | 40V | 20V | 8A           | 3.0V          | 24mΩ          | 48mΩ         | -    | -    | 850pF         | 75pF          | 10nC        |                                                                                       |
| GSM4906   | N/N  | 40V | 20V | 6.8A         | 2.0V          | 52mΩ          | 70mΩ         | -    | -    | 650pF         | 45pF          | 10nC        |                                                                                       |
| GSM4946   | N/N  | 60V | 20V | 6.8A         | 2.5V          | 42mΩ          | 50mΩ         | -    | -    | 890pF         | 48pF          | 10nC        |                                                                                       |
| GSM4539S  | N/P  | 30V | 23V | 2.1V<br>2.5V | 5.4A<br>-5.4A | 40mΩ<br>65mΩ  | 50mΩ<br>92mΩ | -    | -    | -             | -             | 8/10nC      |                                                                                       |
| GSM4953S  | P/P  | 30V | 20V | -5.4A        | 2.5V          | 52mΩ          | 76mΩ         | -    | -    | 500pF         | 55pF          | 10nC        |                                                                                       |
| GSM4953   | P/P  | 30V | 20V | -6.2A        | 2.5V          | 65mΩ          | 95mΩ         | -    | -    | 450pF         | 55pF          | 10nC        |                                                                                       |
| GSM4535   | P/P  | 30V | 20V | -6.2A        | 3V            | 35mΩ          | 50mΩ         | -    | -    | 1100pF        | 115pF         | 13nC        |                                                                                       |



## Package Types

(Body Size Unit mm)

|                                                                                                                  |                                                                                                                   |                                                                                                                   |                                                                                                                     |
|------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|
| <b>SOD-923</b>                                                                                                   | <b>SOD-723</b>                                                                                                    | <b>SOD-523</b>                                                                                                    | <b>SOD-323</b>                                                                                                      |
| L:0.8<br>W:0.6<br>H:0.4<br>     | L:1.0<br>W:0.6<br>H:0.53<br>     | L:1.2<br>W:0.8<br>H:0.6<br>     | L:1.7<br>W:1.3<br>H:0.85<br>     |
| <b>SOD-123</b>                                                                                                   | <b>SOT-523</b>                                                                                                    | <b>SOT-363</b>                                                                                                    | <b>SOT-353</b>                                                                                                      |
| L:2.7<br>W:1.6<br>H:1.1<br>     | L:1.6<br>W:0.8<br>H:0.75<br>     | L:2.1<br>W:1.25<br>H:0.96<br>   | L:2.1<br>W:1.25<br>H:0.96<br>    |
| <b>SOT-323</b>                                                                                                   | <b>SOT-23</b>                                                                                                     | <b>SOT-23-5L</b>                                                                                                  | <b>SOT-23-6L</b>                                                                                                    |
| L:2.1<br>W:1.25<br>H:0.96<br>   | L:2.9<br>W:1.3<br>H:1.0<br>      | L:2.92<br>W:1.6<br>H:1.1<br>    | L:2.92<br>W:1.6<br>H:1.1<br>     |
| <b>SOT-23-8L</b>                                                                                                 | <b>SOT-89</b>                                                                                                     | <b>SOT-223</b>                                                                                                    | <b>TO-252-2L</b>                                                                                                    |
| L:3.02<br>W:1.7<br>H:1.25<br>  | L:4.5<br>W:2.45<br>H:1.5<br>    | L:6.3<br>W:3.56<br>H:1.6<br>   | L:6.5<br>W:5.5<br>H:2.3<br>     |
| <b>TO-252-5L</b>                                                                                                 | <b>TO-263-2L</b>                                                                                                  | <b>TO-263-5L</b>                                                                                                  | <b>TO-220</b>                                                                                                       |
| L:10.0<br>W:8.4<br>H:4.57<br> | L:10.16<br>W:8.7<br>H:4.57<br> | L:10.0<br>W:8.4<br>H:4.57<br> | L:10.16<br>W:8.7<br>H:4.57<br> |
| <b>TO-92</b>                                                                                                     | <b>DIP-8L</b>                                                                                                     | <b>SOIC-8L</b>                                                                                                    | <b>SOIC-14L</b>                                                                                                     |
| L:4.5<br>W:4.5<br>H:3.5<br>   | L:9.25<br>W:6.35<br>H:3.3<br>  | L:4.9<br>W:3.9<br>H:1.55<br>  | L:8.65<br>W:3.9<br>H:1.55<br>  |
| <b>SOIC-20L</b>                                                                                                  | <b>MSOP-8L</b>                                                                                                    | <b>MSOP-10L</b>                                                                                                   | <b>SSOP-20L</b>                                                                                                     |
| L:12.76<br>W:7.5<br>H:2.3<br> | L:3.0<br>W:3.0<br>H:0.85<br>   | L:3.0<br>W:3.0<br>H:0.85<br>  | L:8.65<br>W:3.9<br>H:1.4<br>   |
| <b>TSSOP-20L</b>                                                                                                 | <b>DFN2X2-6L</b>                                                                                                  | <b>DFN3X3-6L</b>                                                                                                  | <b>WDFN3X3-3L</b>                                                                                                   |
| L:6.5<br>W:4.4<br>H:1.0<br>   | L:2.0<br>W:2.0<br>H:0.75<br>   | L:3.0<br>W:3.0<br>H:0.75<br>  | L:3.0<br>W:3.0<br>H:0.75<br>   |
| <b>QFN3X3-8L</b>                                                                                                 | <b>QFN3X3-16L</b>                                                                                                 | <b>WQFN-16L</b>                                                                                                   | <b>FBP-02C</b>                                                                                                      |
| L:3.0<br>W:3.0<br>H:0.75<br>  | L:3.0<br>W:3.0<br>H:0.75<br>   | L:2.5<br>W:2.0<br>H:0.45<br>  | L:1.0<br>W:0.6<br>H:0.55<br>   |





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