

Features

- Halogen Free. "Green" Device (Note 1)
- Glass Passivated Chip Junction
- Extremely Low Thermal Resistance
- Epoxy Meets UL 94 V-0 Flammability Rating
- Moisture Sensitivity Level 1
- Lead Free Finish/RoHS Compliant (Note 2)("P" Suffix Designates RoHS Compliant. See Ordering Information)

1.5 Amp General Purpose Rectifier 1600 Volts

Maximum Ratings @ 25°C (Unless Otherwise Specified)

| Parameter | Symbol | Value | Unit | |
|--|--------------------|-------|------------------|--|
| Peak Repetitive Reverse Voltage | V_{RRM} | | | |
| Working Peak Reverse Voltage | V _{RWM} | 1600 | V | |
| DC Blocking Voltage | V _R | | | |
| RMS Reverse Voltage | V _{RMS} | 1120 | V | |
| Average Rectified Forward Current @ T _L =115°C | I _{F(AV)} | 1.5 | А | |
| Non-Repetitive Peak Surge Current @8.3ms Half Sine Wave | I _{FSM} | 30 | Α | |
| Current Squared Time @ 1ms≤t≤8.3ms | l²t | 3.735 | A ² s | |

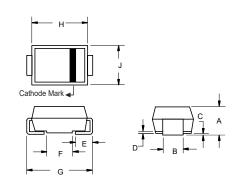
Internal Structure

| Pin | Description | Simplified Outline | Graphic Symbol |
|-----|-------------|--------------------|----------------|
| 1 | Cathode | MCC 2 | |
| 2 | Anode | 1 GS2Y 2 | 1 0 2 |

Note: 1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

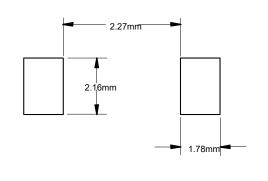
2. High Temperature Solder Exemption Applied, see EU Directive Annex 7a.

SMA (DO-214AC)



| DIMENSIONS | | | | | | |
|------------|-------|-------|-------|-------|------|--|
| DIM | INC | HES | MM | | NOTE | |
| DIIVI | MIN | MAX | MIN | MAX | NOIL | |
| Α | 0.075 | 0.096 | 1.90 | 2.44 | | |
| В | 0.050 | 0.064 | 1.27 | 1.63 | | |
| С | 0.002 | 0.008 | 0.051 | 0.203 | | |
| D | | 0.020 | | 0.51 | | |
| Е | 0.030 | 0.060 | 0.76 | 1.52 | | |
| F | 0.065 | 0.091 | 1.65 | 2.32 | | |
| G | 0.189 | 0.220 | 4.80 | 5.59 | | |
| Ι | 0.157 | 0.187 | 4.00 | 4.75 | | |
| J | 0.090 | 0.115 | 2.25 | 2.92 | | |

SUGGESTED SOLDER PAD LAYOUT





Thermal characteristics

| Symbol | Parameter | Conditions | Min | Тур | Max | Unit |
|----------------------|---|------------|-----|-----|-----|------|
| T _J | Operating Junction Temperature Range | | -55 | | 150 | °C |
| T _{stg} | Storage Temperature Range | | -55 | | 150 | °C |
| Rth _(J-L) | Thermal Resistance from Junction to Lead | Note 1 | | 20 | | °C/W |
| Rth _(J-A) | Thermal Resistance from Junction to Ambient | Note 1 | | 80 | | °C/W |

Note:

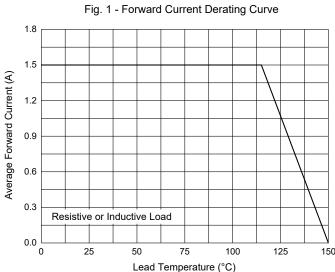
Electrical Characteristics @ 25°C Unless Otherwise Specified

| Parameter | Symbol | Test Conditions | Min | Тур | Max | Unit |
|-----------------------|-----------------|---|-----|-----|---------|------|
| Forward Voltage | V _F | I _F =1.5A;T _J =25°C | | | 1.15 | V |
| Reverse Current | I _R | at Rated $V_R;T_J=25^{\circ}C$ at Rated $V_R;T_J=100^{\circ}C$ | | 0.1 | 3 50 | μА |
| Reverse Recovery Time | t _{rr} | I _F =0.5A; I _R =1.0A; I _{rr} =0.25A;T _J =25°C | | 4 | | μS |
| Junction Capacitance | Сл | V _R =4V;f=1MHz;T _J =25°C | | 9.5 | | pF |

^{1.}Mounted on P.C.B. with 8mm*8mm copper pad areas.



Curve Characteristics

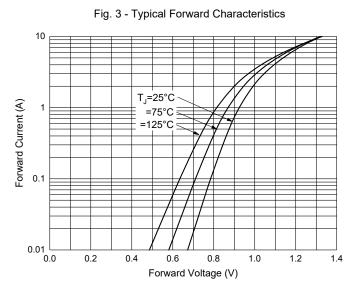


Peak Forward Surge Current (A) 20 15 10 5 8.3 ms Single Half Sine-Wave 0 10 150 100 Lead Temperature (°C) Number of Cycles at 60 Hz

35

30

25



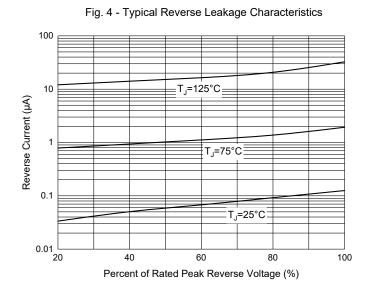
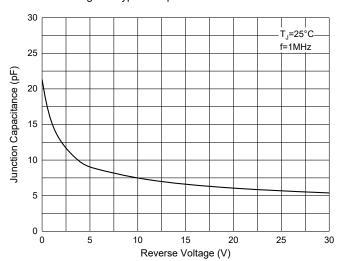


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

Fig. 5 - Typical Capacitance Characteristics





Ordering Information

| Device | Packing | | |
|----------|------------------------|--|--|
| GS2Y-LTP | Tape&Reel:7.5Kpcs/Reel | | |

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