

RoHS Compliant Product

A suffix of "-C" specifies halogen-free and RoHS Compliant

FEATURES

- For Surface Mounted Applications
- Low Profile Package
- Glass Passivated Chip Junction
- Easy to Pick and Place
- Lead Free in Comply with EU RoHS 2011/65/EU Directives

MECHANICAL DATA

- Cases: SMB (DO-214AA)
- Terminals: Solderable per MIL-STD-750, Method 2026
- Polarity: Color Band Denotes Cathode End

MARKING

| Part Number | Marking Code | Part Number | Marking Code |
|-------------|--------------|-------------|--------------|
| QG503BR-C | S5D | QG506BR-C | S5K |
| QG504BR-C | S5G | QG507BR-C | S5M |
| QG505BR-C | S5J | | |

PACKAGE INFORMATION

| Package | MPQ | Leader Size |
|---------|-----|-------------|
| SMB | 3K | 13 inch |

ORDER INFORMATION

| Part Number | Type |
|---------------------|---------------------------------|
| QG503BR-C~QG507BR-C | Lead (Pb)-free and Halogen-free |

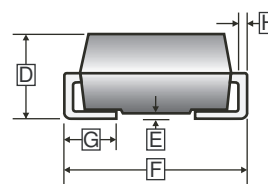
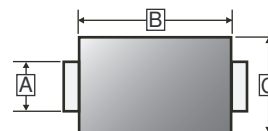
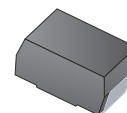
MAXIMUM RATINGS (T_A=25°C unless otherwise specified)

| Parameters | Symbol | Part Number | | | | | Units |
|--|-----------------------------------|-------------|------------|------------|------------|------------|-------|
| | | QG 503BR-C | QG 504BR-C | QG 505BR-C | QG 506BR-C | QG 507BR-C | |
| Maximum Repetitive Peak Reverse Voltage | V _{RRM} | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum RMS Voltage | V _{RMS} | 140 | 280 | 420 | 560 | 700 | |
| Maximum DC Blocking Voltage | V _{DC} | 200 | 400 | 600 | 800 | 1000 | |
| Maximum Average Forward Rectified Current | I _F | 5 | | | | | A |
| Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load | I _{FSM} | 200 | | | | | A |
| Maximum Instantaneous Forward Voltage @I _F =5A | V _F | 1.1 | | | | | V |
| Maximum DC Reverse Current @Rated DC Blocking Voltage | T _A =25°C | 10 | | | | | µA |
| | T _A =125°C | 100 | | | | | |
| Typical Junction Capacitance ¹ | C _J | 40 | | | | | pF |
| Typical Thermal Resistance ² | R _{θJA} | 48 | | | | | °C/W |
| | R _{θJC} | 16 | | | | | |
| Storage & Operating Temperature Range | T _J , T _{STG} | -55~150 | | | | | °C |

Notes:

1. Measured at 1 MHz and applied reverse voltage of 4V D.C.
2. P.C.B. mounted with 2.0" x 2.0" (5 x 5 cm) copper pad areas.

SMB



| REF. | Millimeter | | REF. | Millimeter | |
|------|------------|------|------|------------|------|
| | Min. | Max. | | Min. | Max. |
| A | 1.85 | 2.20 | E | - | 0.25 |
| B | 4.00 | 4.85 | F | 5.05 | 5.59 |
| C | 3.25 | 3.94 | G | 0.75 | 1.55 |
| D | 1.90 | 2.61 | H | 0.15 | 0.31 |

Cathode ◯ ← ◯ Anode

RATINGS AND CHARACTERISTIC CURVES

Fig.1 Forward Current Derating Curve

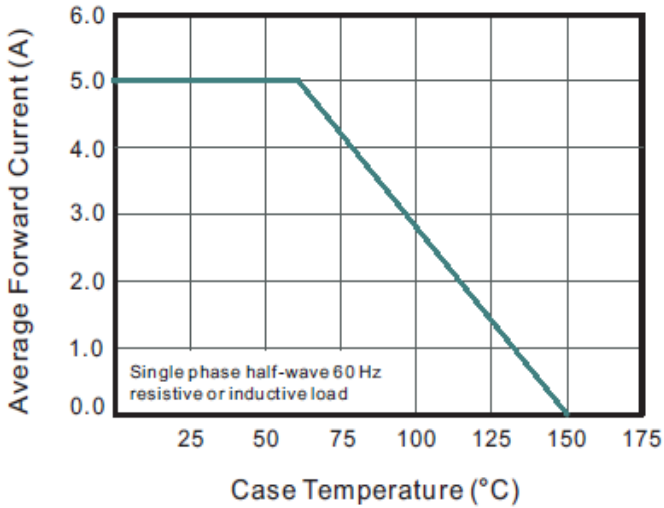


Fig.2 Typical Instantaneous Reverse Characteristics

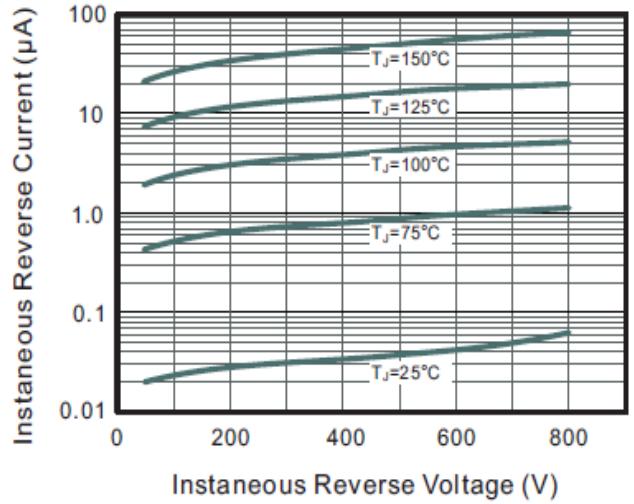


Fig.3 Typical Forward Characteristic

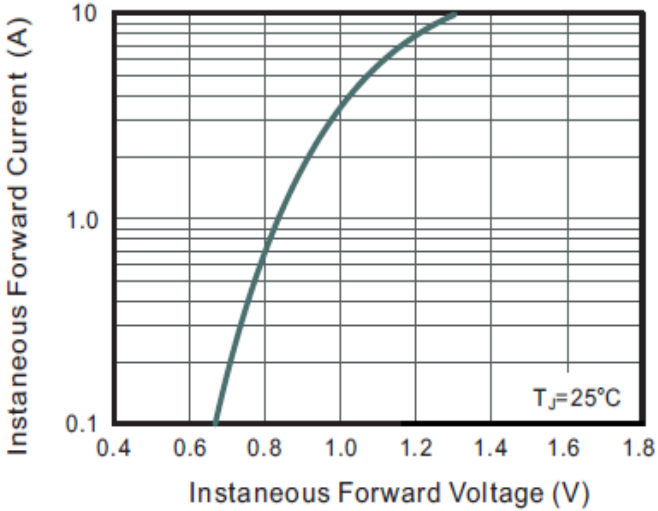


Fig.4 Typical Junction Capacitance

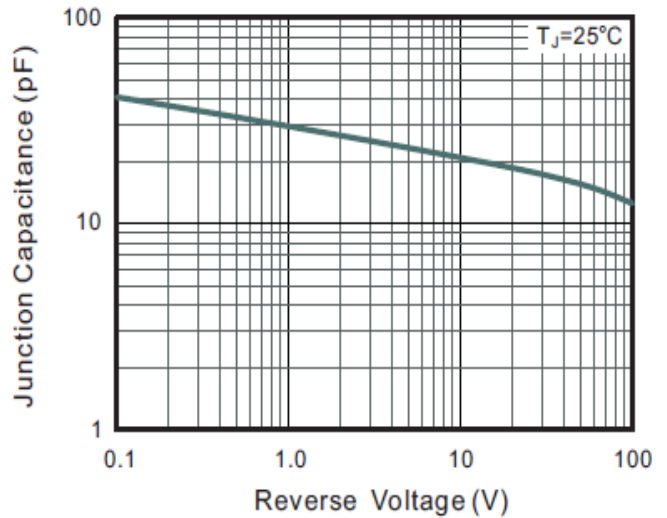


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

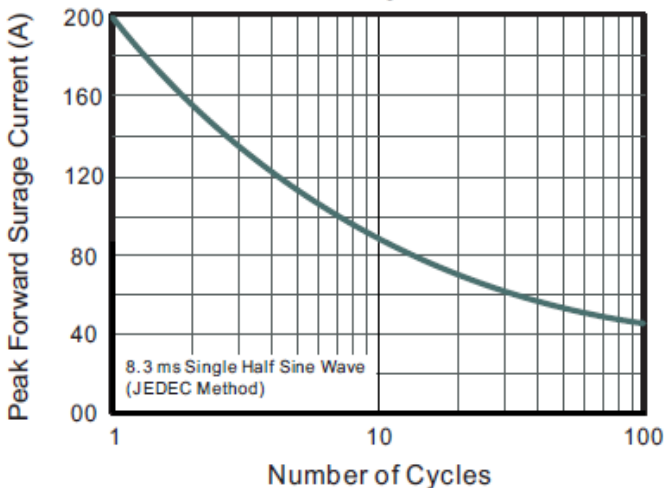


Fig.6 Mounting Pad Layout

