SECOS
Elektronische Bauelemente

QG307BM-C
Voltage 1000V
3.0 Amp Surface Mount Silicon Rectifiers

RoHS Compliant Product
A suffix of "-C" specifies halogen & lead-free

FEATURES

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

MECHANICAL DATA

- Case: SMBM
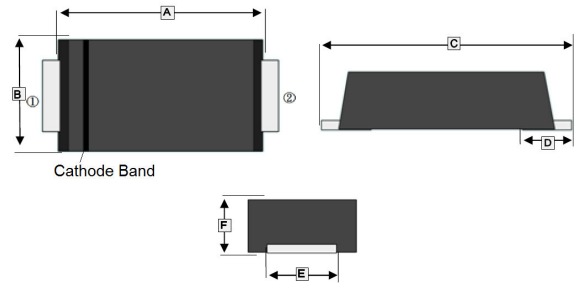- Terminals: Solderable per MIL-STD-750, Method 2026

MARKING

S3MB

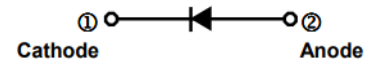## PACKAGE INFORMATION

Package	MPQ	Leader Size
SMBM	5K	13 inch

ORDER INFORMATION

Part Number	Type
QG307BM-C	Lead (Pb)-free and Halogen-free

SMBM

Cathode Band

REF.	Millimeter Min.	Millimeter Max.	REF.	Millimeter Min.	Millimeter Max.
A	4.2	4.7	D	1.0 REF	
B	3.4	3.8	E	1.8	2.2
C	5.1	5.5	F	1.1	1.45

① Cathode — Anode ②

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(Rating 25℃ ambient temperature unless otherwise s pecified. Single phase half wave, 60Hz, resistive or inductive load.
For capacitive load, de-rate current by 20%.)

Parameter		Symbol	Part Number	Unit
Maximum Repetitive Peak Reverse Voltage		V_{RRM}	1000	V
Maximum RMS Voltage		V_{RMS}	700	V
Maximum DC Blocking Voltage		V_{DC}	1000	V
Maximum Average Forward Rectified Current		I_F	3	A
Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load		I_{FSM}	80	A
Maximum Instantaneous Forward Voltage @I_F=3A		V_F	1.1	V
Maximum DC Reverse Current at Rated DC Blocking Voltage	T_A=25℃	I_R	5	μA
	T_A=125℃		150	
Typical Junction Capacitance [1]		C_J	35	pF
Typical Thermal Resistance [2]		$R_{θJA}$	45	℃/W
		$R_{θJC}$	15	
Operating & Storage Temperature Range		T_J, T_{STG}	-55~150	℃

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 mm) copper pad areas.

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RATINGS AND CHARACTERISTIC CURVES
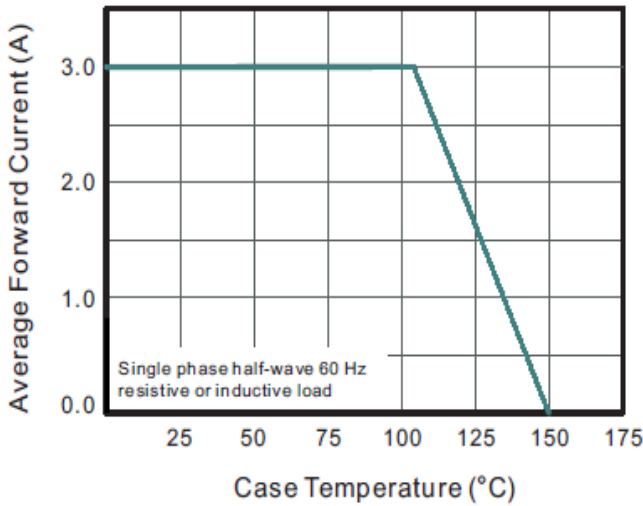
Fig.1 Forward Current Derating Curve
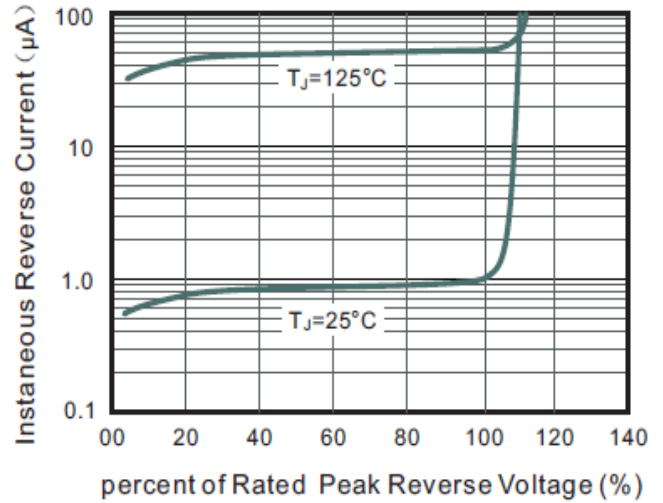

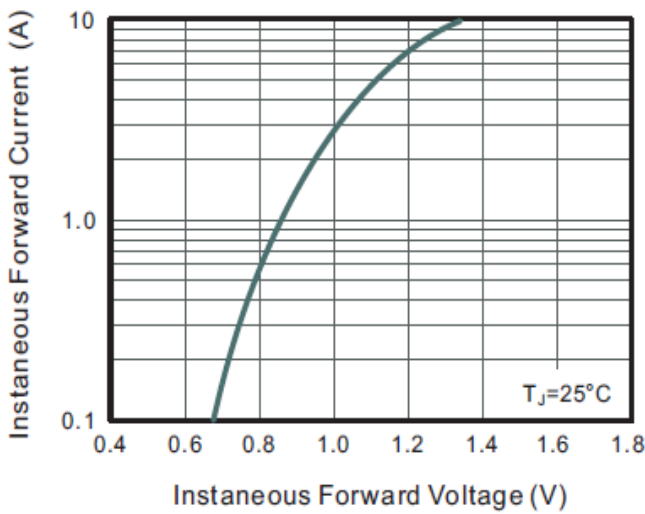Fig.2 Typical Reverse Characteristics

Fig.3 Typical Forward Characteristic
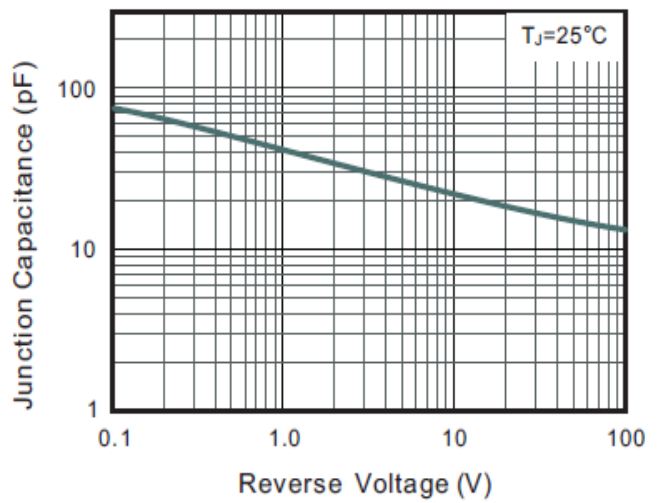

Fig.4 Typical Junction Capacitance
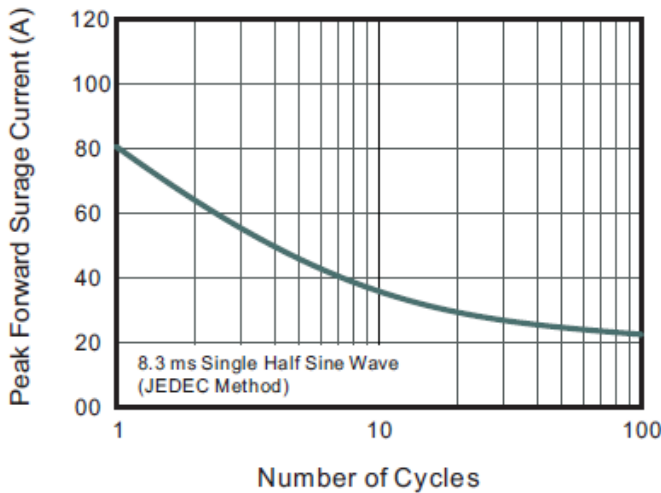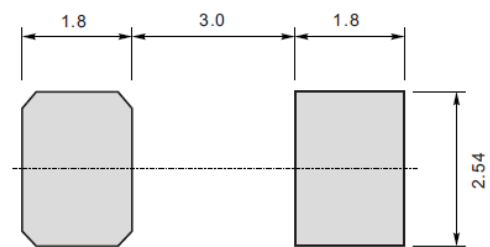

Fig.5 Maximum Non-Repetitive Peak Forward Surage Current

Fig.6 Mounting Pad Layout

*Dimensions in millimeters