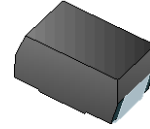


RoHS Compliant Product
A suffix of "-C" specifies halogen & lead-free

FEATURES

- Glass Passivated Die Construction
- Low Forward Voltage Drop
- High Current Capability
- Metal Silicon Junction, Majority Carrier Conduction

SMC

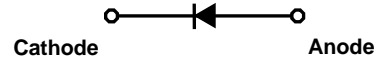


MECHANICAL DATA

- Case Material : Molded Plastic. UL Flammability Classification Rating 94V-0
- Terminals : Plated Leads Solderable Per MIL-STD-750, Method 2026 Guaranteed
- Polarity : Cathode Band

PACKAGE INFORMATION

Package	MPQ	Leader Size
SMC	3K	13 inch



ORDER INFORMATION

Part Number	Type
QG301C-C~QG307C-C	Lead (Pb)-free and Halogen-free

MAXIMUM RATINGS ($T_A=25^{\circ}\text{C}$ unless otherwise noted)

Parameters	Symbol	Part Number							Units
		QG 301C-C	QG 302C-C	QG 303C-C	QG 304C-C	QG 305C-C	QG 306C-C	QG 307C-C	
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	
Average Rectified Output Current	I_F	3							A
Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	110							A
Forward Voltage	V_F	$I_F=1.5A$							V
		$I_F=3A$							
Peak Reverse Current @ Rated DC Blocking Voltage	I_R	$T_A=25^{\circ}\text{C}$							μA
		$T_A=100^{\circ}\text{C}$							
Typical Junction Capacitance ¹	C_J	25							pF
Thermal Resistance Junction-Ambient ²	$R_{\theta JA}$	80							$^{\circ}\text{C}/\text{W}$
Storage & Operating Temperature Range	T_J, T_{STG}	-55~150							$^{\circ}\text{C}$

Notes:

1. Measured at 1MHz and applied reverse voltage of 4V D.C.
2. Device mounted on FR-4 substrate, 1"*1", 2oz, single-sided, PC boards with 0.15"*0.26" copper pad.

RATINGS AND CHARACTERISTIC CURVES

FIG.1 MAXIMUM AVERAGE FORWARD CURRENT DERATING

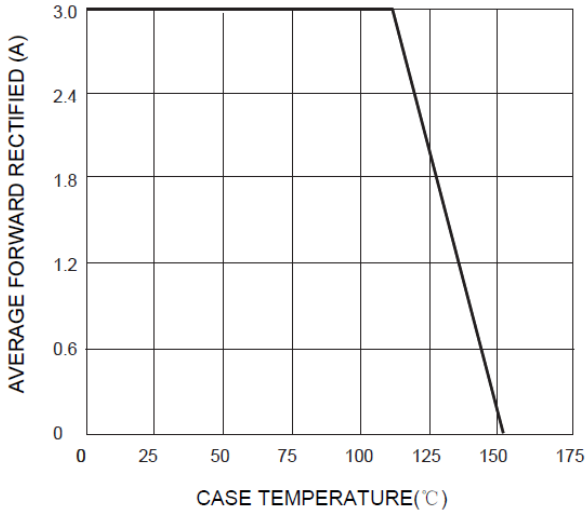


FIG.2 TYPICAL FORWARD CHARACTERISTICS

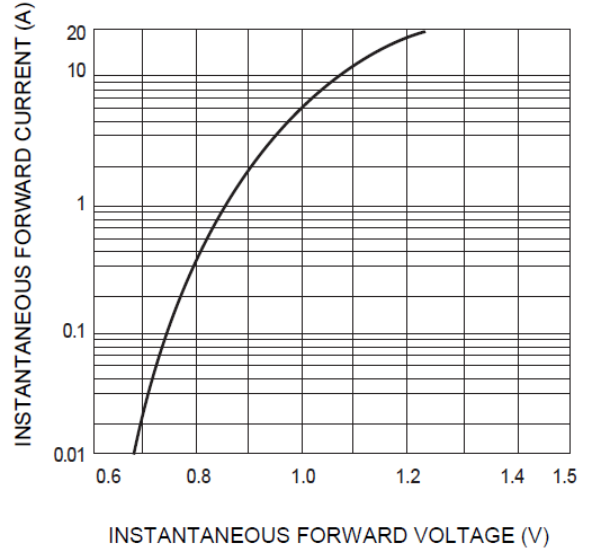


FIG.3 MAXIMUM NON-REPEITIVE SURGE CURRENT

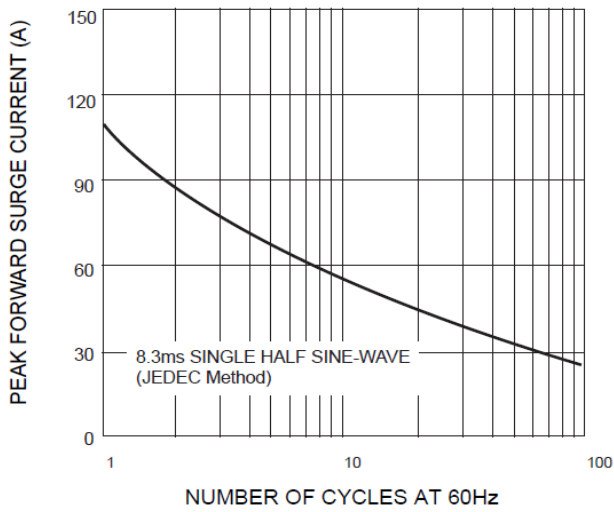
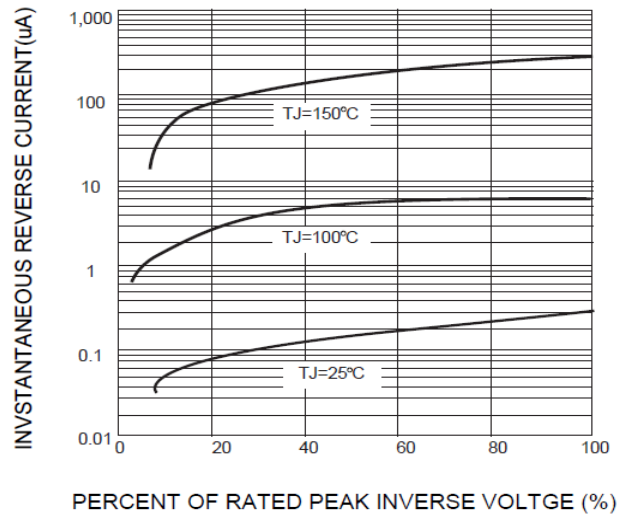
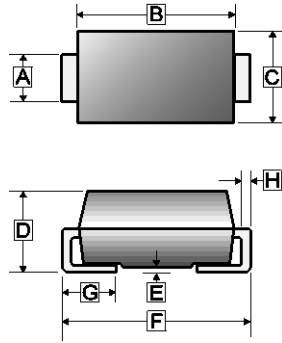


Fig. 4 TYPICAL REVERSE CHARACTERISTICS



PACKAGE OUTLINE DIMENSIONS

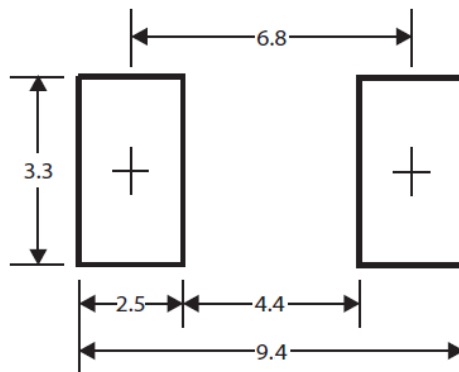
SMC



REF.	Millimeter	
	Min.	Max.
A	2.75	3.27
B	6.52	7.11
C	5.50	6.22
D	1.98	2.62
E	-	0.203
F	7.64	8.17
G	0.75	1.60
H	0.23 TYP.	

MOUNTING PAD LAYOUT

SMC



*Dimensions in millimeters