

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

FEATURES

- Ideal for surface mount applications
- Easy pick and place
- Built-in strain relief
- High surge current capability

MECHANICAL DATA

- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0
- Terminals: Lead Free Plating (Tin Finish)
Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band

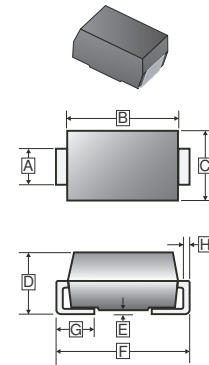
PACKAGE INFORMATION

Package	MPQ	Leader Size
SMA	5K	13 inch

ORDER INFORMATION

Part Number	Type
SM4001A-C~SM4007A-C	Lead (Pb)-free and Halogen-free

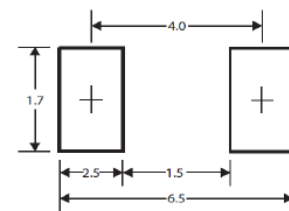
SMA



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	1.23	1.65	E	-	0.3
B	3.99	4.75	F	4.70	5.28
C	2.30	2.90	G	0.75	1.52
D	1.90	2.62	H	0.15	0.31

Cathode  Anode

Mounting Pad Layout



*Dimensions in millimeters

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

Parameter	Symbol	Part Number							Unit
		SM 4001A-C	SM 4002A-C	SM 4003A-C	SM 4004A-C	SM 4005A-C	SM 4006A-C	SM 4007A-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	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current	I_F	1							A
Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	30							A
Maximum Instantaneous Forward Voltage @1A	V_F	1.1							V
Maximum DC Reverse Current @Rated DC Blocking Voltage	$T_J=25^\circ\text{C}$	5							μA
	$T_J=100^\circ\text{C}$	50							
Typical Junction Capacitance ¹	C_J	15							pF
Typical Thermal Resistance	$R_{\theta JA}$	50							°C/W
Typical Thermal Resistance	$R_{\theta JL}$	30							
Operating & Storage Temperature	T_J, T_{STG}	-55~150							°C

Note:

1. Measured at 1MHz and applied reverse voltage of 4V DC.

RATINGS AND CHARACTERISTIC CURVES

Fig. 1 – Forward Current Derating Curve

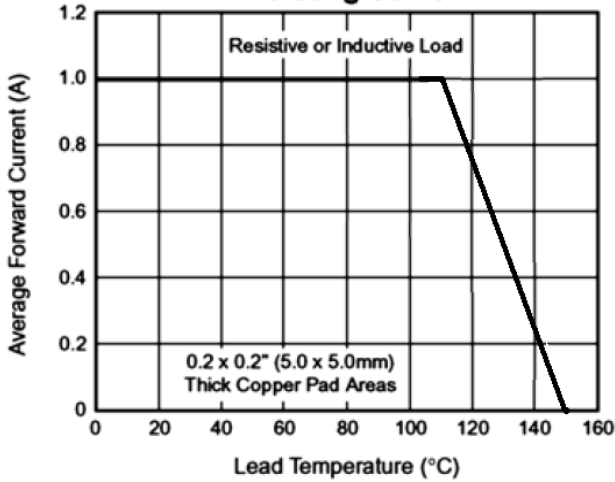


Fig. 2 – Maximum Non-Repetitive Peak Forward Surge Current

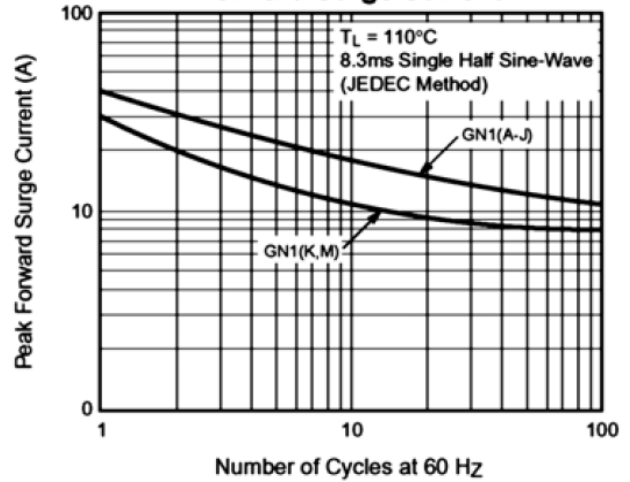


Fig. 3 – Typical Instantaneous Forward Characteristics

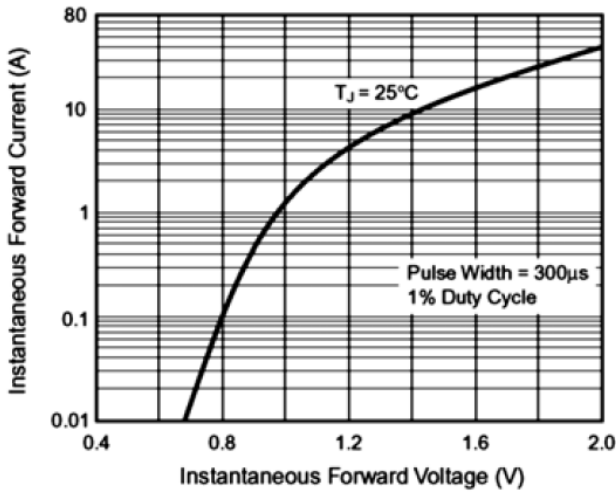


Fig. 4 – Typical Reverse Leakage Characteristics

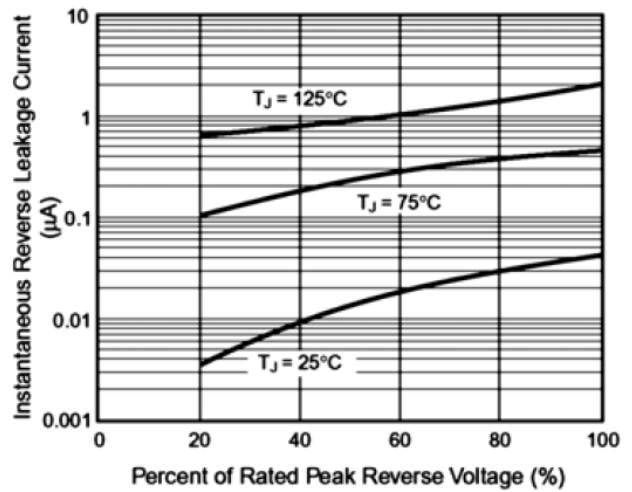


Fig. 5 – Typical Junction Capacitance

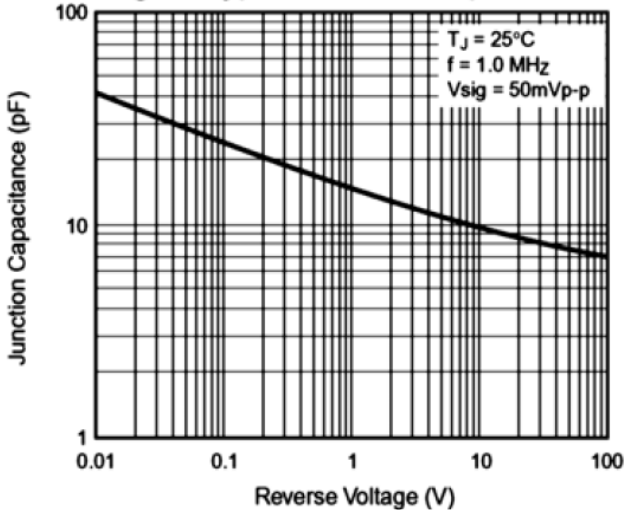


Fig. 6 – Transient Thermal Impedance

