

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

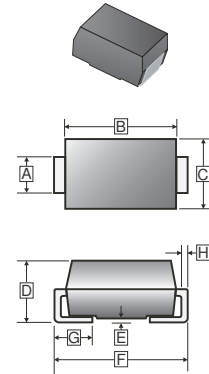
## FEATURES

- Ideal for surface mount applications
- Easy pick and place
- Built-in strain relief
- High surge current capability
- Qualified to AEC-Q101 standards for high reliability

## 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

### SMA



## PACKAGE INFORMATION

Package	MPQ	Leader Size
SMA	5K	13 inch

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

## ORDER INFORMATION

Part Number	Type
SM4001ACR-C~SM4007ACR-C	Lead (Pb)-free and Halogen-free

Cathode  Anode

## 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%)

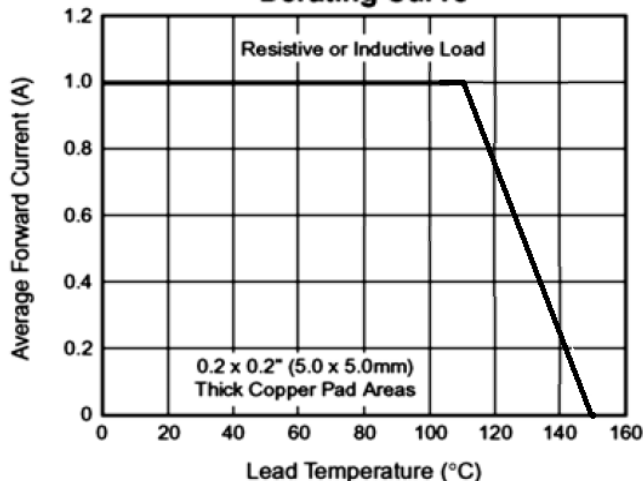
Parameter	Symbol	Part Number							Unit
		SM4001 ACR-C	SM4002 ACR-C	SM4003 ACR-C	SM4004 ACR-C	SM4005 ACR-C	SM4006 ACR-C	SM4007 ACR-C	
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	$V_{RMS}$	35	70	140	280	420	560	700	
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	800	1000	
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							$\mu\text{A}$
	$T_J=100^\circ\text{C}$	50							
Typical Junction Capacitance <sup>1</sup>	$C_J$	15							pF
Typical Thermal Resistance-Ambient	$R_{\theta JA}$	50							$^\circ\text{C}/\text{W}$
Typical Thermal Resistance-Lead	$R_{\theta JL}$	30							
Operating & Storage Temperature Range	$T_J, T_{STG}$	-55~150							$^\circ\text{C}$

Note:

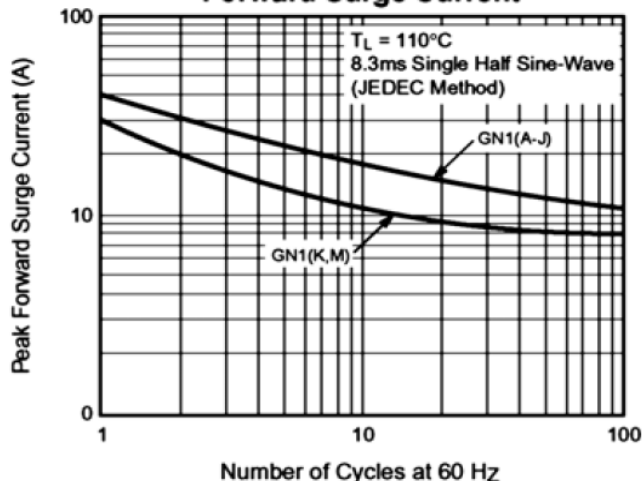
1. Measured at 1MHz and applied reverse voltage of 4V D.C.

**RATINGS AND CHARACTERISTIC CURVES**

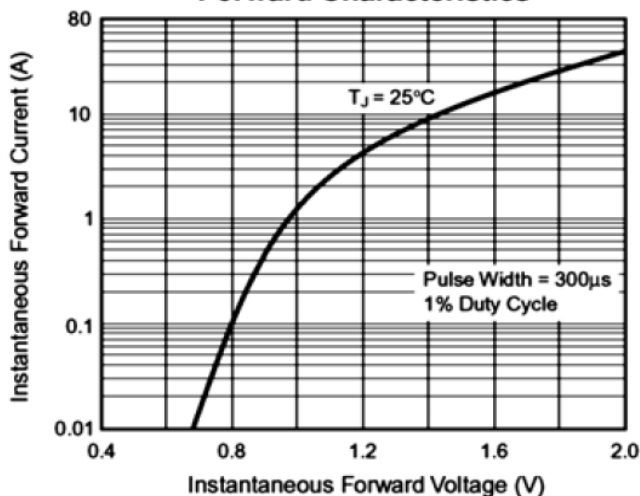
**Fig. 1 – Forward Current Derating Curve**



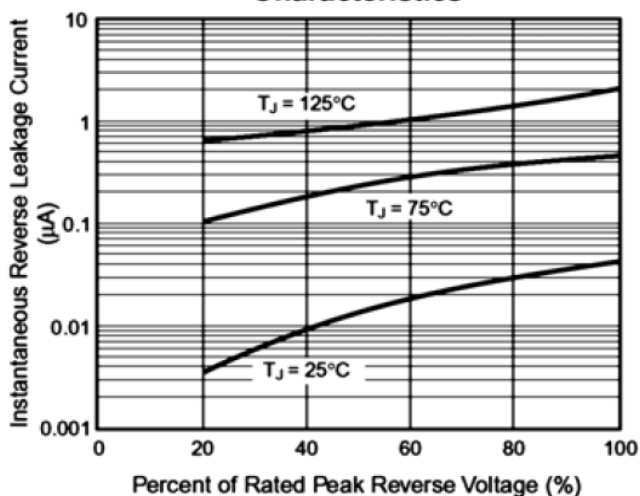
**Fig. 2 – Maximum Non-Repetitive Peak Forward Surge Current**



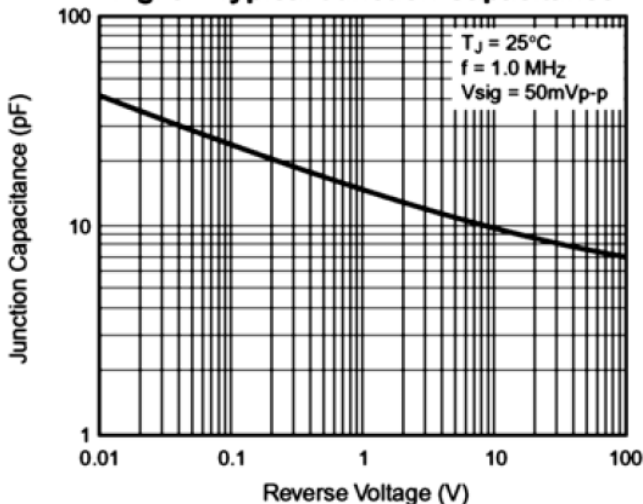
**Fig. 3 – Typical Instantaneous Forward Characteristics**



**Fig. 4 – Typical Reverse Leakage Characteristics**



**Fig. 5 – Typical Junction Capacitance**



**Fig. 6 – Transient Thermal Impedance**

