

RoHS Compliant Product

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

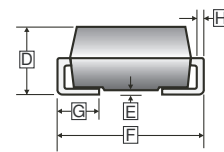
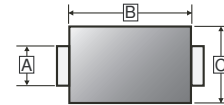
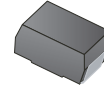
FEATURES

- Surface mount device
- High surge current capability
- Low reverse current
- 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
SMF101ACR-C~SMF107ACR-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
		SMF	SMF	SMF	SMF	SMF	SMF	SMF	
		101ACR-C	102ACR-C	103ACR-C	104ACR-C	105ACR-C	106ACR-C	107ACR-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 @ $T_A=55^\circ\text{C}$	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	1.3							V
Maximum DC Reverse Current @Rated DC Blocking Voltage	$T_J=25^\circ\text{C}$	5							μA
	$T_J=125^\circ\text{C}$	100							
Typical Junction Capacitance ¹	C_J	15							pF
Maximum Reverse Recovery Time ²	T_{RR}	150				250	500		nS
Thermal Resistance, Junction-Ambient	$R_{\theta JA}$	105							$^\circ\text{C/W}$
Thermal Resistance, Junction-Lead	$R_{\theta JL}$	32							
Storage and Operating Temperature Range	T_{STG}, T_J	-55~150							$^\circ\text{C}$

Notes:

1. Measured at 1MHz and applied reverse voltage of 4V D.C.
2. Measured with $I_F=0.5\text{A}$, $I_R=1\text{A}$, $I_{RR}=0.25\text{A}$.

CHARACTERISTIC CURVES

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

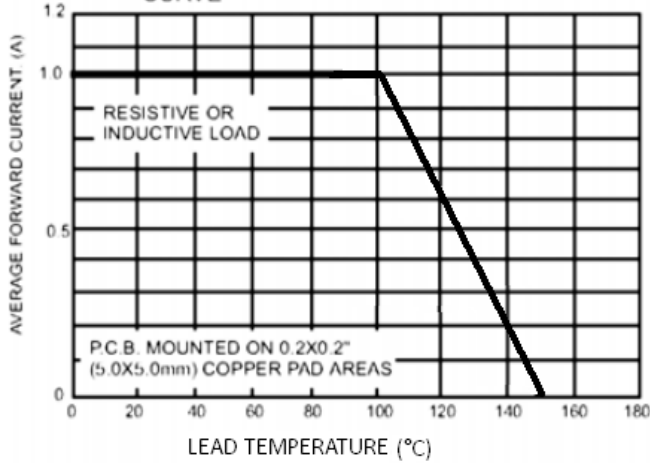


FIG.2- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

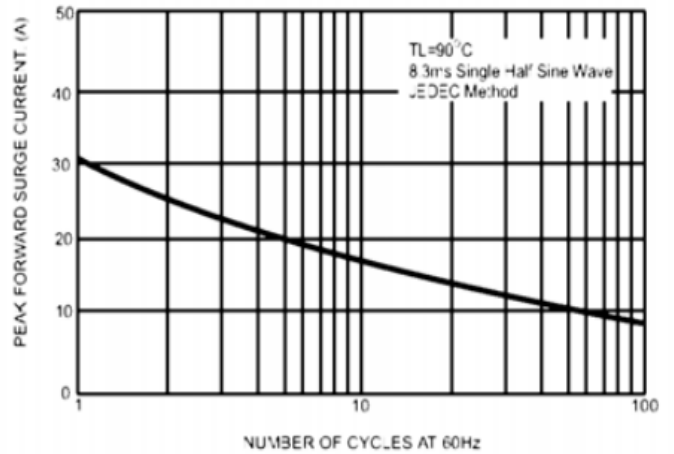


FIG.3- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER LEG

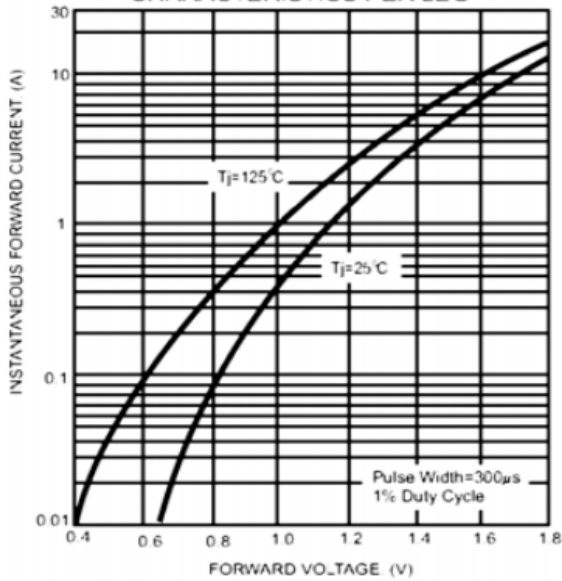


FIG.4- TYPICAL REVERSE CHARACTERISTICS

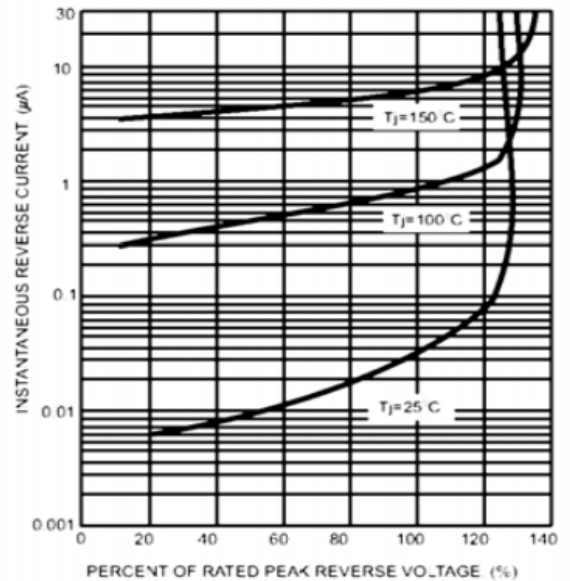


FIG.5- TYPICAL JUNCTION CAPACITANCE

