

..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
- Low forward voltage drop

MECHANICAL DATA

- Metallurgically bonded construction
- Polarity: Color band denotes cathode end
- Case: Molded plastic
- Epoxy: UL94-V0 rate flame retardant

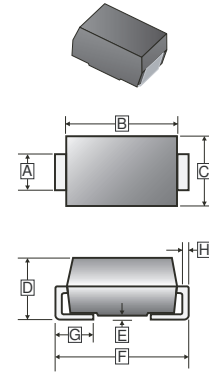
PACKAGE INFORMATION

Package	MPQ	Leader Size
SMA	5K	13 inch

ORDER INFORMATION

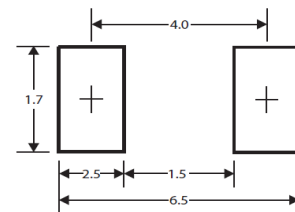
Part Number	Type
SM120A-C~SM1100A-C	Lead (Pb)-free and Halogen-free

SMA



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	1.23	1.65	E	-	0.3
B	3.99	4.75	F	4.80	5.28
C	2.30	2.90	G	0.75	1.52
D	1.90	2.62	H	0.15	0.31

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%.)

Parameters	Symbol	Part Number				Unit
		SM120A-C	SM140A-C	SM160A-C	SM1100A-C	
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	20	40	60	100	V
Maximum RMS Voltage	V_{RMS}	14	28	42	70	
Working Peak Reverse Voltage	V_{RWM}	20	40	60	100	
Maximum DC Blocking Voltage	V_R	20	40	60	100	
Maximum Forward Average Forward Rectified Current, See Fig.1	I_o	1				A
Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	35				A
Maximum Instantaneous Forward Voltage @1A	V_F	0.45	0.52	0.65	0.83	V
Maximum DC Reverse Current @Rated DC Blocking Voltage	$T_A=25^\circ\text{C}$	0.1				mA
	$T_A=100^\circ\text{C}$	6				
Typical Diode Junction Capacitance ¹	C_J	110				pF
Thermal Resistance Junction-Ambient	$R_{\theta JA}$	95				°C/W
Thermal Resistance Junction-Lead	$R_{\theta JL}$	28				
Operating Temperature Range	T_J	-50~150				°C
Storage Temperature Range	T_{STG}	-60~175				°C

Note:

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

RATINGS AND CHARACTERISTIC CURVES

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

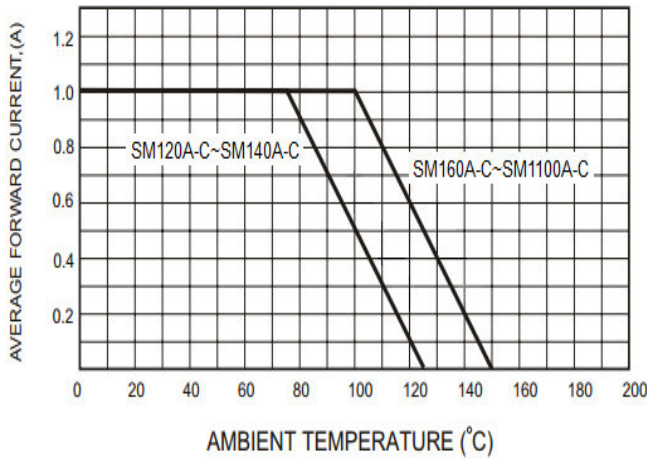


FIG.2-TYPICAL FORWARD CHARACTERISTICS

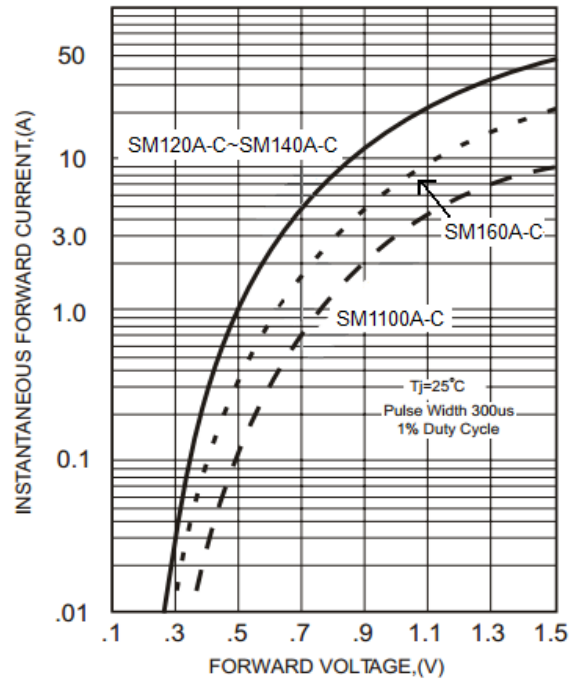


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

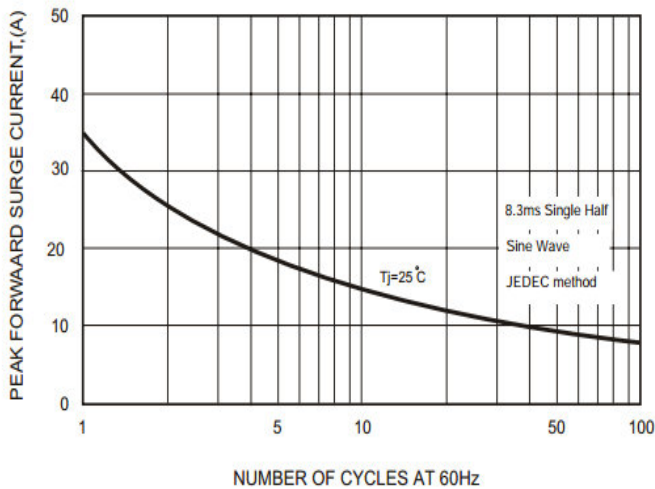


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

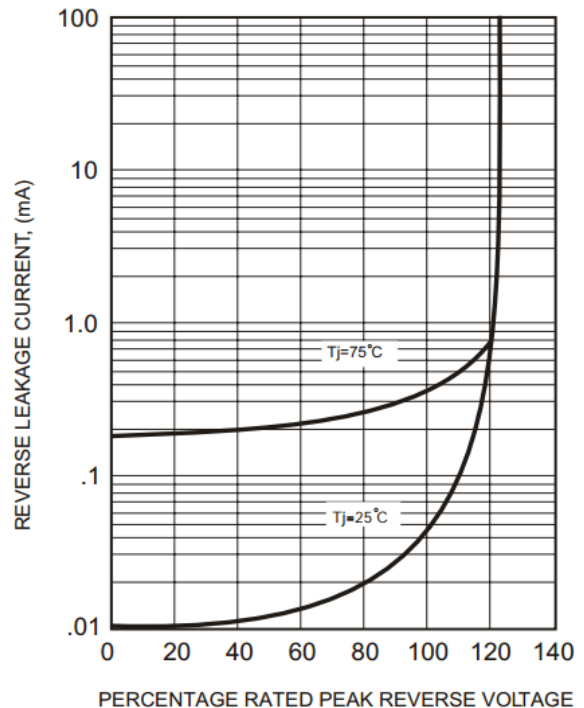


FIG.4-TYPICAL JUNCTION CAPACITANCE

