

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
- Super Fast Switching Speed Under
- Qualified to AEC-Q101 Standards for High Reliability

## MECHANICAL DATA

- Epoxy: UL94V-0 Rate Flame Retardant
- Polarity: Color Band Denotes Cathode
- Mounting Position: Any

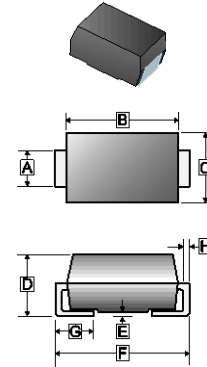
## PACKAGE INFORMATION

Package	MPQ	Leader Size
SMA	5K	13 inch

## ORDER INFORMATION

Part Number	Type
SUF201ACR-C~SUF205ACR-C	Lead (Pb)-free and Halogen-free

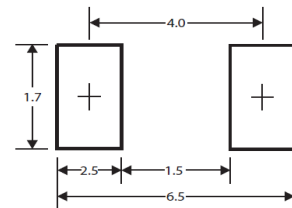
### SMA



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
		SUF 201ACR-C	SUF 202ACR-C	SUF 203ACR-C	SUF 204ACR-C	SUF 205ACR-C	
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	V
Maximum RMS Voltage	$V_{RMS}$	35	70	140	280	420	V
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	V
Maximum Average Forward Rectified Current, 375"(9.5mm) Lead Length	$I_F$	2					A
Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load	$I_{FSM}$	50					A
Maximum Instantaneous Forward Voltage @2A	$V_F$	0.98		1.3	1.7	V	
Maximum DC Reverse Current @Rated DC Blocking Voltage	$T_C=25^\circ C$	5					$\mu A$
	$T_C=100^\circ C$	100					
Typical Junction Capacitance <sup>1</sup>	$C_J$	50					pF
Maximum Reverse Recovery Time <sup>2</sup>	$T_{RR}$	35					nS
Typical Thermal Resistance <sup>3</sup>	$R_{\theta JA}$	80					$^\circ C/W$
Operating & Storage Temperature	$T_J, T_{STG}$	-55~150					$^\circ C$

Notes:

1. Measured at 1MHz and applied reverse voltage of 4V D.C.
2. Measured with  $I_F=0.5A$ ,  $I_R=1A$ ,  $I_{RR}=0.25A$ .
3. Device mounted on FR-4 substrate, 1"×1", 2oz, single-sided, PC boards with 0.1"×0.15" copper pad.

**RATINGS AND CHARACTERISTIC CURVES**

FIG. 1-TYPICAL FORWARD CURRENT DERATING CURVE

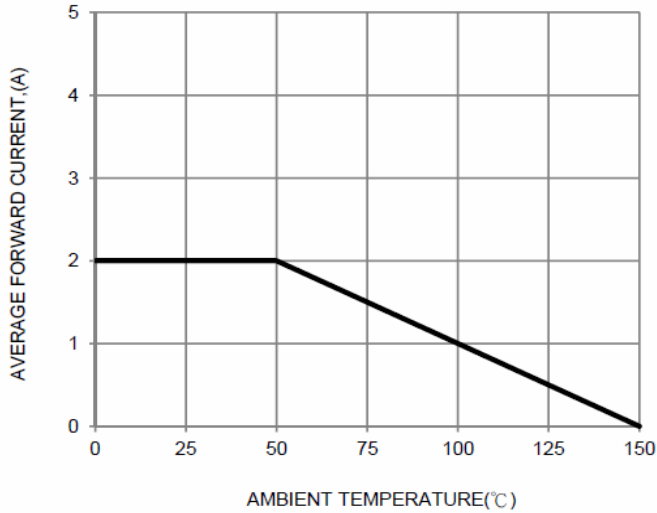


FIG. 2-TYPICAL FORWARD CHARACTERISTICS

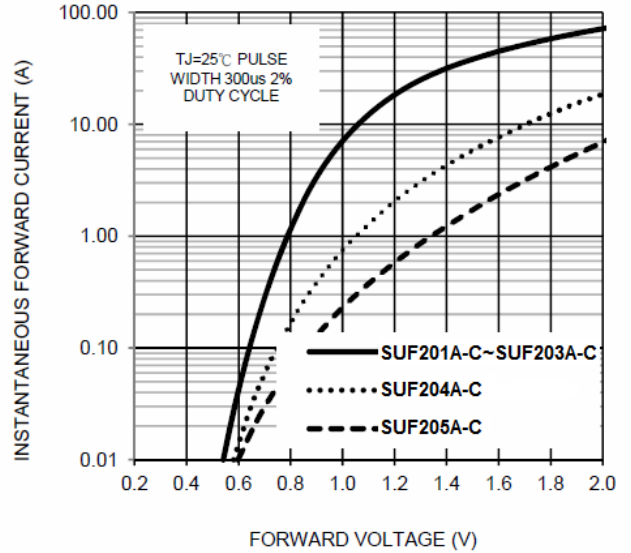


FIG. 3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

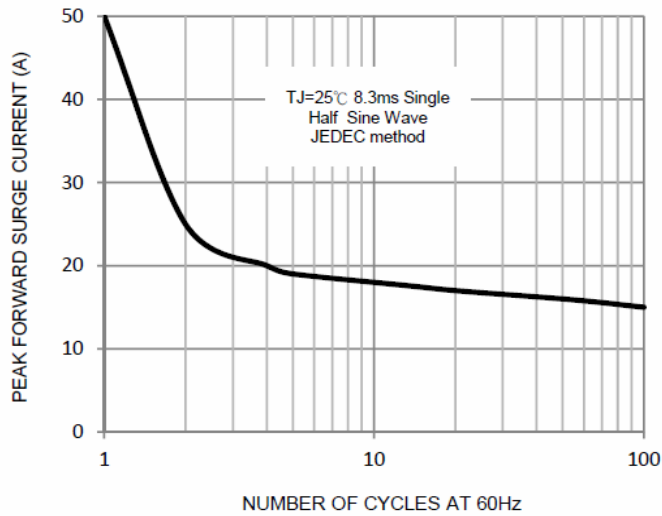


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

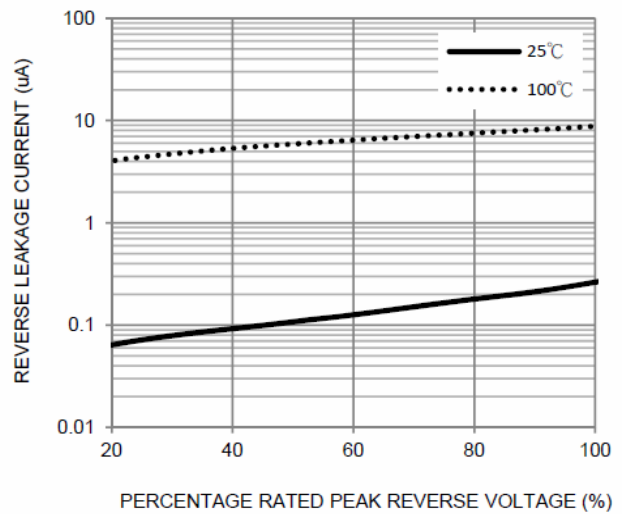


FIG. 5-TYPICAL JUNCTION CAPACITANCE

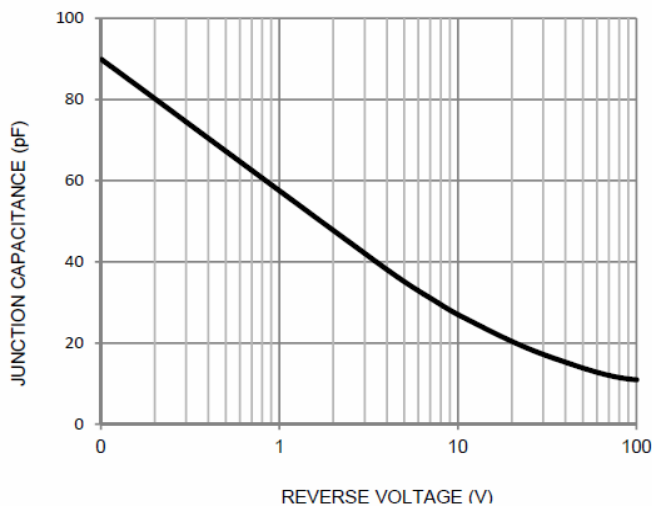


FIG. 6-Reverse Recovery Time Characteristic and Test Circuit

