

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 35ns

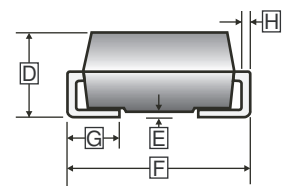
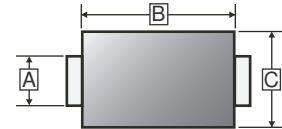
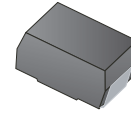
## MECHANICAL DATA

- Case: Molded plastic SMC
- Epoxy: UL 94V-0 rate flame retardant
- Polarity: Color band denotes cathode
- Mounting position: Any

## PACKAGE INFORMATION

Package	MPQ	Leader Size
SMC	3K	13 inch

### SMC



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	2.750	3.250	E	-	0.203
B	6.520	7.110	F	7.750	8.130
C	5.590	6.220	G	0.760	1.520
D	2.000	2.620	H	0.150	0.305

## 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
		SUF301C	SUF302C	SUF303C	SUF304C	SUF305C	
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 at $T_A=55^\circ\text{C}$	$I_F$	3					A
Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load@ $T_L=100^\circ\text{C}$	$I_{FSM}$	80					A
Maximum Instantaneous Forward Voltage @ 3A	$V_F$	0.98		1.3	1.7	V	
Maximum DC Reverse Current at Rated DC Blocking Voltage	$T_A=25^\circ\text{C}$	10					$\mu\text{A}$
	$T_A=100^\circ\text{C}$	500					
Maximum Reverse Recovery Time <sup>1</sup>	$T_{RR}$	35					nS
Typical Junction Capacitance <sup>2</sup>	$C_J$	50			40		pF
Typical Thermal Resistance <sup>3</sup>	$R_{\theta JL}$	12					$^\circ\text{C/W}$
	$R_{\theta JA}$	47					$^\circ\text{C/W}$
Operating & Storage Temperature	$T_J, T_{STG}$	-55~150					$^\circ\text{C}$

Notes:

1. Reverse Recovery Time test condition :  $I_F=0.5\text{A}$ ,  $I_R=1\text{A}$ ,  $I_{RR}=0.25\text{A}$
2. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
3. Units Mounted on P.C.B. with 0.31\*0.31"(8\*8mm) Copper Pad Areas.

**CHARACTERISTIC CURVES**

FIG. 1-Typical Forward Current Derating Curve

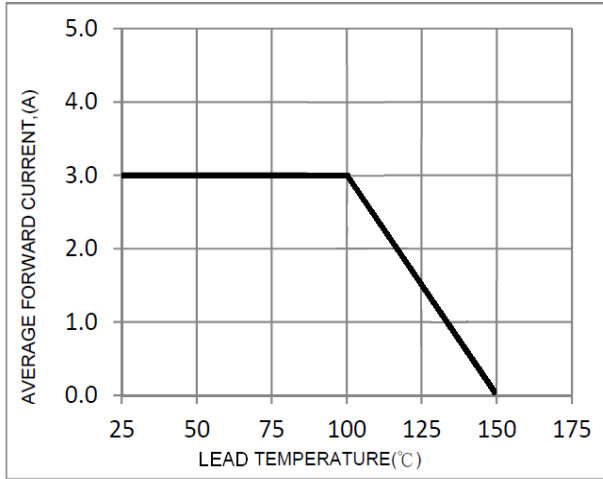


FIG. 2-Typical Forward Characteristics

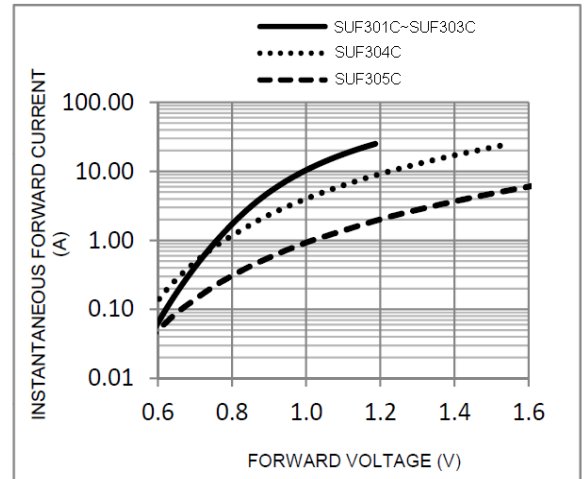


FIG. 3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

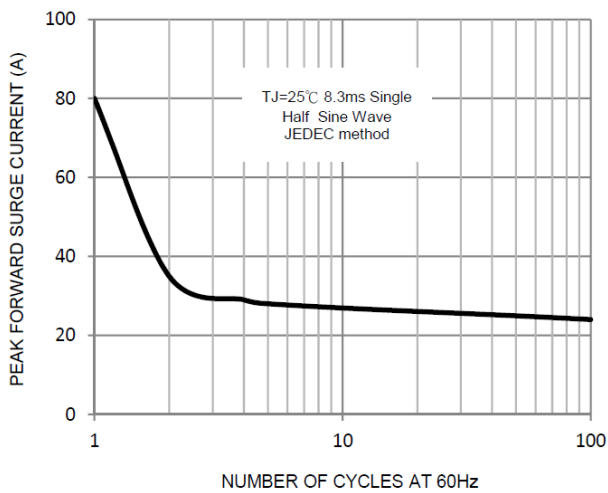


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

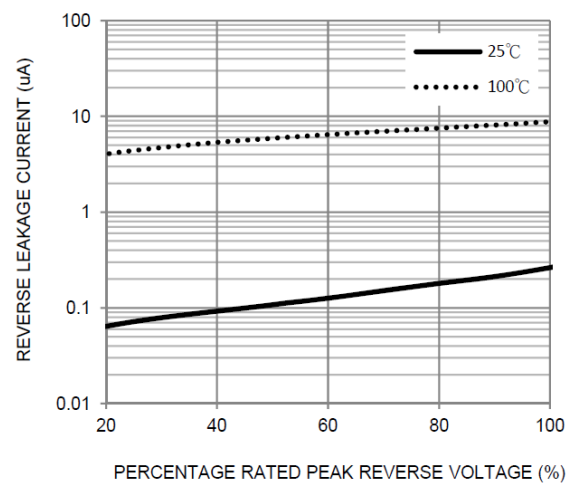


FIG. 5-TYPICAL JUNCTION CAPACITANCE

