

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

### FEATURES

- Low Power Loss, High Efficiency
- Ideally Suited for Automatic Assembly
- Guard Ring Die Construction
- Plastic Case Material has UL Flammability Classification Rating 94V-0

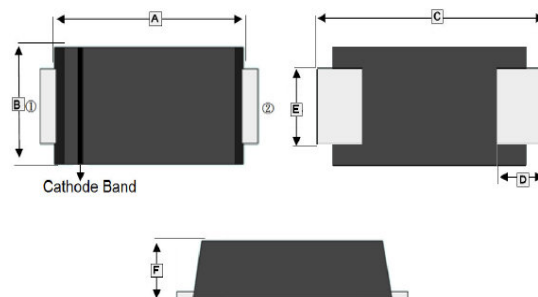
### MECHANICAL DATA

- Case: SMAF
- Terminals: Plated Leads Solderable per MIL-STD-750, Method 2026 Guaranteed
- Polarity: Color Band Denotes Cathode End
- Mounting Position: Any

### MARKING

Part Number	Marking Code	Part Number	Marking Code
SUF101AF-C	SF11	SUF104AF-C	SF16
SUF102AF-C	SF12	SUF105AF-C	SF18
SUF103AF-C	SF14		

### SMAF



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	3.20	4.60	D	0.50	1.50
B	2.25	2.95	E	1.25	1.65
C	4.40	5.60	F	0.90	1.25



### PACKAGE INFORMATION

Package	MPQ	Leader Size
SMAF	3K	7 inch

### ORDER INFORMATION

Part Number	Type
SUF101AF-C~SUF105AF-C	Lead (Pb)-free and Halogen-free

### ABSOLUTE MAXIMUM RATINGS

(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
		SUF101AF-C	SUF102AF-C	SUF103AF-C	SUF104AF-C	SUF105AF-C	
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	V
Maximum RMS Voltage	$V_{RMS}$	35	70	140	280	420	
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	
Average Rectified Output Current @ $T_L=90^\circ\text{C}$	$I_o$	1					A
Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load	$I_{FSM}$	30					A
Maximum Instantaneous Forward Voltage @ $I_F=1\text{A}$	$V_F$	0.98		1.3	1.7	V	
Peak Reverse Current @ Rated DC Blocking Voltage	$T_A=25^\circ\text{C}$	5					$\mu\text{A}$
	$T_A=100^\circ\text{C}$	150					
Typical Junction Capacitance <sup>2</sup>	$C_J$	10					pF
Maximum Reverse Recovery Time <sup>1</sup>	$T_{RR}$	35					nS
Typical Thermal Resistance	$R_{\theta JA}$	70					$^\circ\text{C/W}$
Operating Junction & Storage Temperature	$T_J, T_{STG}$	-55~150					$^\circ\text{C}$

Notes:

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

**RATINGS AND CHARACTERISTIC CURVES**

FIG. 1-Typical Forward Current Derating Curve

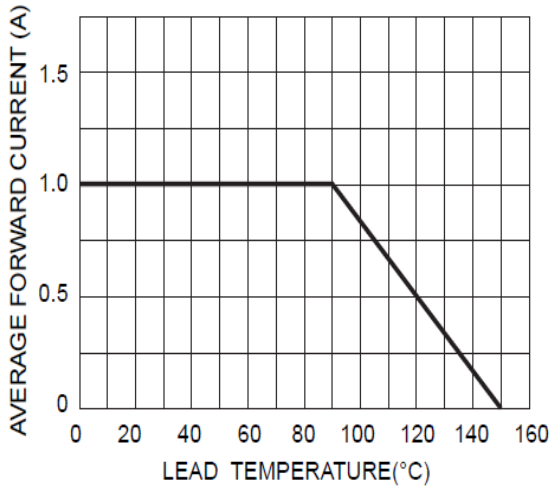


FIG. 2-Maximum Non-Repetitive Forward Surge Current

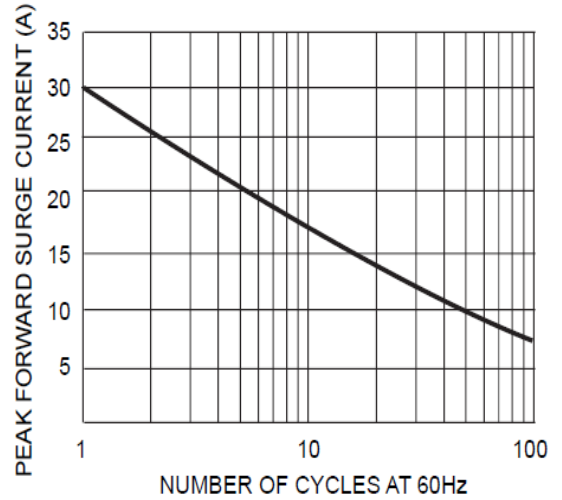


FIG. 3-Typical Forward Characteristics

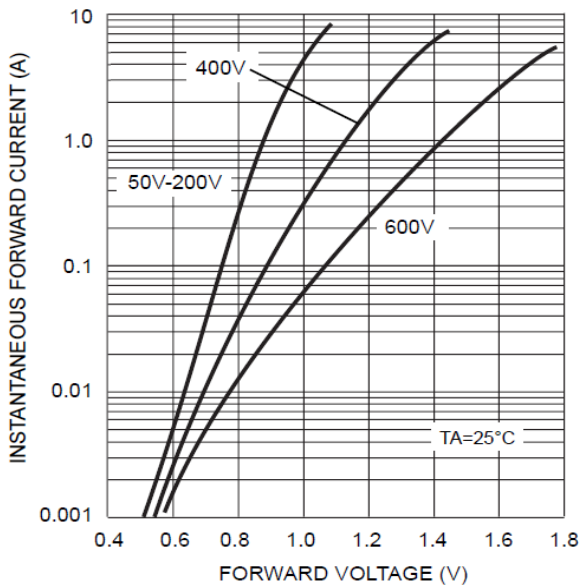


FIG. 4-Typical Reverse Characteristics

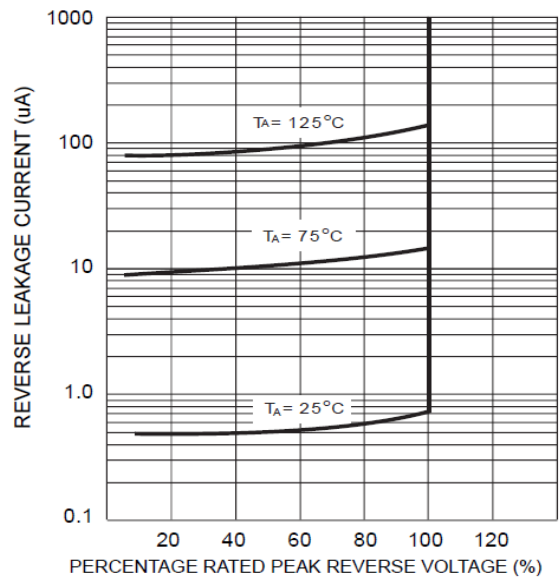


FIG. 5-Typical Junction Capacitance

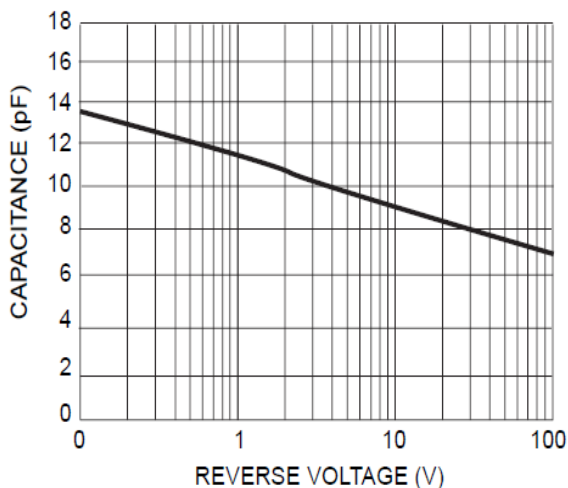


FIG.6-Mounting Pad Layout

