

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

FEATURES

- Glass passivated Superfast Recovery rectifiers
- Ideal for automated placement
- Low forward voltage drop
- Low leakage current

MECHANICAL DATA

- Case: SMAF
- Moisture sensitivity: level 1, per J-STD-020
- Low profile, typical thickness 1.0mm

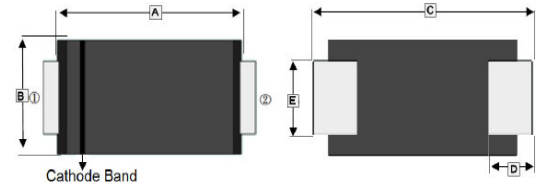
PACKAGE INFORMATION

Package	MPQ	Leader Size
SMAF	3K	7 inch

ORDER INFORMATION

Part Number	Type
SUF201AF~SUF205AF	Lead (Pb)-free
SUF201AF-C~SUF205AF-C	Lead (Pb)-free and Halogen-free

SMAF



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	3.30	4.60	D	0.70	1.50
B	2.25	2.95	E	1.25	1.65
C	4.40	5.60	F	0.90	1.20

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
		SUF201AF	SUF202AF	SUF203AF	SUF204AF	SUF205AF	
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	
Maximum Average Forward Rectified Current	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 @ $I_F=2A$	V_F	1		1.3		1.7	V
Maximum DC Reverse Current @ DC Blocking Voltage	I_R	$T_A=25^\circ C$					μA
		$T_A=125^\circ C$					
Typical Junction Capacitance ²	C_J	15					pF
Typical Reverse Recovery Time ¹	T_{RR}	35					nS
Typical Thermal Resistance ³	$R_{\theta JA}$	70					°C/W
	$R_{\theta JM}$	20					
Operating Junction & Storage Temperature	T_J, T_{STG}	-55~150					°C

Notes:

1. Measured with $I_F=0.5A$, $I_R=1A$, $I_{RR}=0.25A$.
2. Measured at 1MHz and applied reverse voltage of 4V D.C
3. The thermal resistance from junction to ambient and mount, mounted on P.C.B with 8x8mm copper pads, 2OZ, FR4 PCB.

RATINGS AND CHARACTERISTIC CURVES

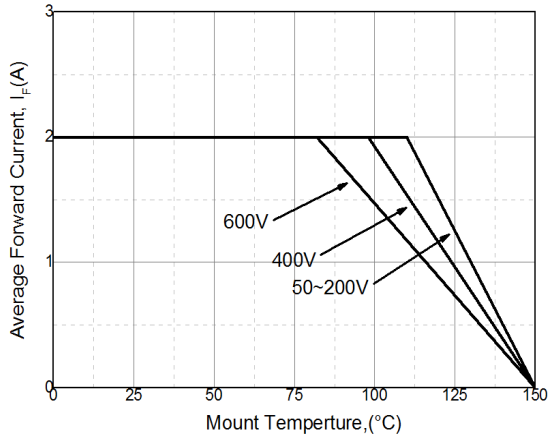


Figure 1. Forward Current Derating Curve

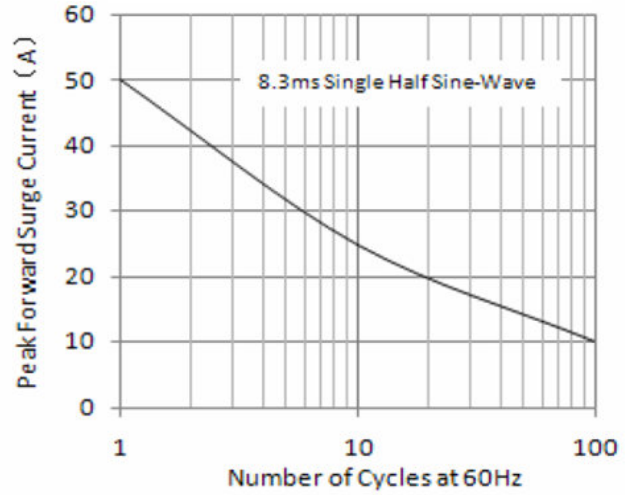


Figure 2. Maximum Non-Repetitive Peak Forward Surge

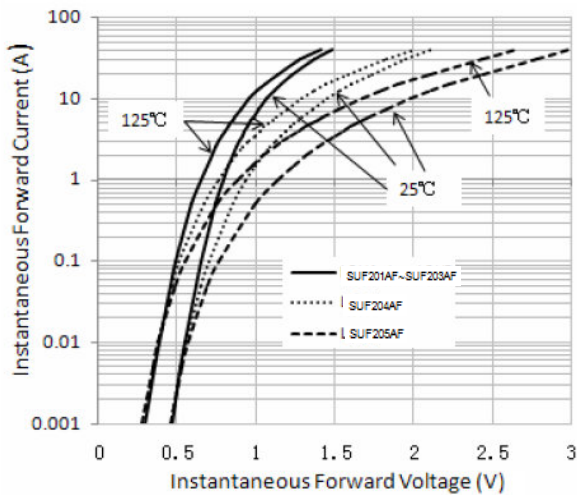


Figure 3. Typical Instantaneous Forward Characteristics

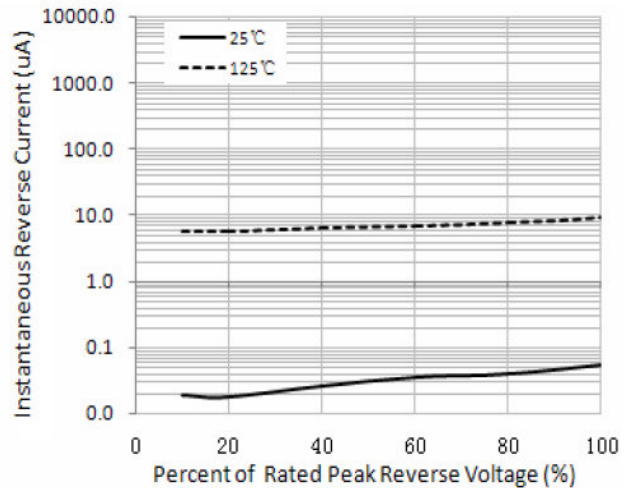


Figure 4. Typical Reverse Characteristics

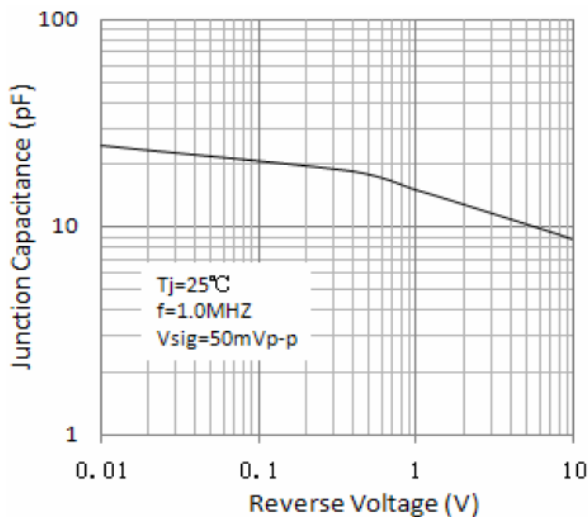


Figure 5. Typical Junction Capacitance