

RoHS Compliant Product

A suffix of "-C" specifies halogen-free and RoHS Compliant

## FEATURES

- Ideal for surface mount applications
- Easy pick and place
- Built-in strain relief
- Low forward voltage drop

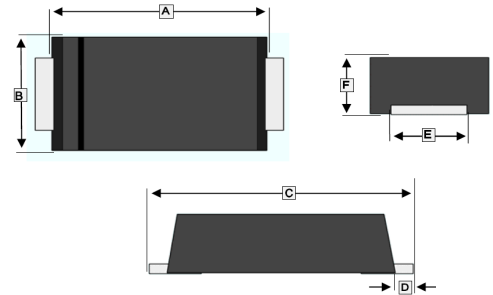
## PACKAGING INFORMATION

- Metallurgically bonded construction
- Polarity: Color band denotes cathode end
- Case: Molded plastic
- Epoxy: UL94-V0 rate flame retardant
- Weight: 0.032 grams (approximately)

## PACKAGE INFORMATION

Package	MPQ	Leader Size
SMAF	3K	7 inch

## SMAF



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	3.95	4.60	D	0.75	1.50
B	2.25	2.95	E	1.25	1.65
C	4.80	5.60	F	0.90	1.10

## 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
		SM 220AF	SM 240AF	SM 260AF	SM 2100AF	SM 2150AF	SM 2200AF	
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	20	40	60	100	150	200	V
Working Peak Reverse Voltage	$V_{RMS}$	14	28	42	70	105	140	V
Maximum DC Blocking Voltage	$V_R$	20	40	60	100	150	200	V
Maximum Instantaneous Forward Voltage @ 2A	$V_F$	0.45	0.5	0.7	0.85	0.87	0.9	V
Maximum Average Forward Rectified Current, See Fig.1	$I_O$	2						A
Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	50						A
Maximum Reverse Current <sup>2</sup>	$I_R$	0.5			0.2			mA
		15			5			
Typical Thermal Resistance	$R_{\theta JA}$	120						°C / W
Typical Thermal Resistance	$R_{\theta JC}$	90						
Diode Junction Capacitance (Typ.) <sup>1</sup>	$C_J$	70	50	40				pF
Operating Temperature Range	$T_J$	-50 ~ 125				-50~150		°C
Storage Temperature Range	$T_{STG}$	-50~150						°C

Note:

1.  $f=1\text{MHz}$  and applied 4V DC reverse voltage
2. Pulse Test : Pulse Width = 300  $\mu\text{s}$ , Duty Cycle  $\leq 2.0\%$ .

**RATINGS AND CHARACTERISTIC CURVES**

FIG. 1-TYPICAL FORWARD CURRENT DERATING CURVE

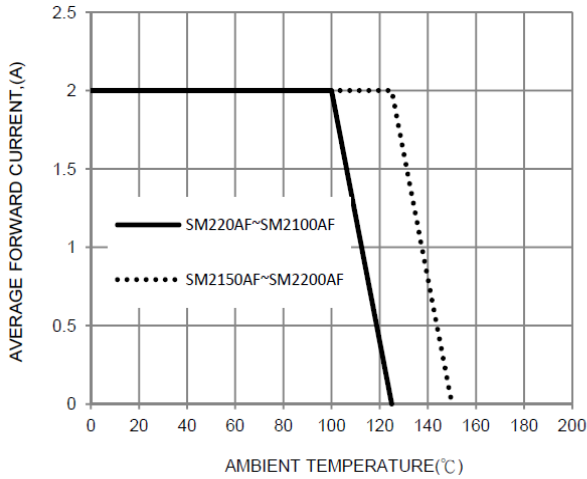


FIG. 2-TYPICAL FORWARD CHARACTERISTICS

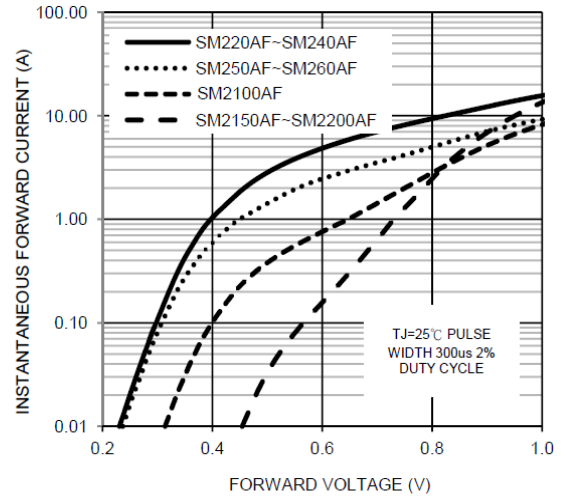


FIG. 3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

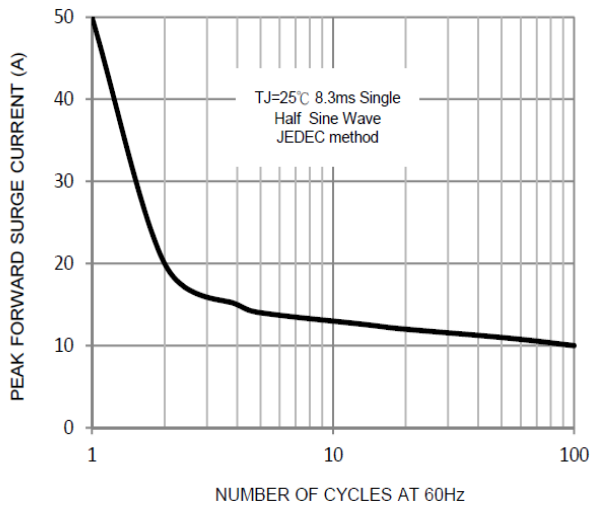


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

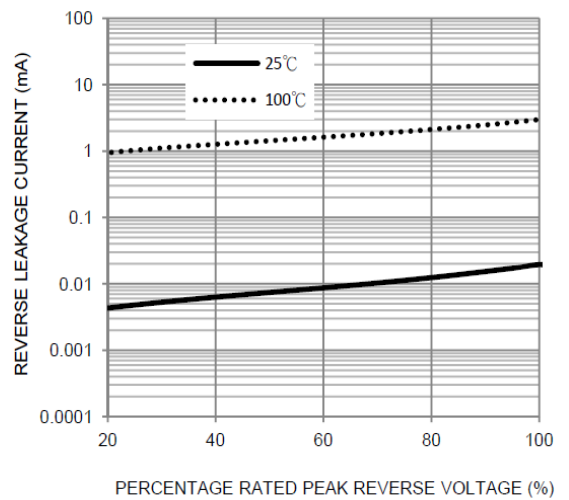


FIG. 5-TYPICAL JUNCTION CAPACITANCE

