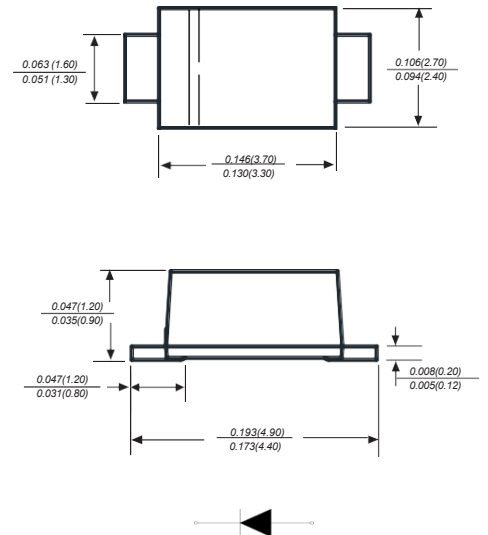


SURFACE MOUNT FAST RECOVERY RECTIFIER

Features

- ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆ For surface mounted applications
- ◆ Fast switching for high efficiency
- ◆ Low reverse leakage
- ◆ Built-in strain relief, ideal for automated placement
- ◆ High forward surge current capability
- ◆ High temperature soldering guaranteed:
260°C/10 seconds at terminals
Glass passivated chip junction

SMAF



Dimensions in inches and (millimeters)

Maximum Ratings And Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

Parameter	SYMBOLS	RS3AF	RS3BF	RS3DF	RS3GF	RS3JF	RS3KF	RS3MF	UNITS
Marking Code									
Maximum repetitive peak reverse voltage	V _{RMM}	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V _{RMS}	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	V _{DC}	50	100	200	400	600	800	1000	V
Maximum average forward rectified current at TL=125℃	I _(AV)	3.0							A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	80							A
Maximum instantaneous forward voltage at 3.0A	V _F	1.30							V
Maximum DC reverse current TA=25℃ at rated DC blocking voltage TA=125℃	I _R	5.0 100							uA
Maximum reverse recovery time (NOTE 1)	t _{rr}	150				250	500		ns
Typical junction capacitance (NOTE 2)	C _J	32.0							pF
Typical thermal resistance (NOTE 3)	R _{θJA}	50.0							℃/W
	R _{θJC}	16.0							
Operating junction and storage temperature range	T _J , T _{STG}	-55 to +150							℃

Note: 1. Reverse recovery condition $I_F=0.5\text{A}$, $I_R=1.0\text{A}$, $t_{rr}=0.25\text{A}$
 2. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
 3. P.C.B. mounted with 0.2x0.2" (5.0x5.0mm) copper pad areas

Ratings And Characteristic Curves

Fig.1 Maximum Average Forward Current Rating

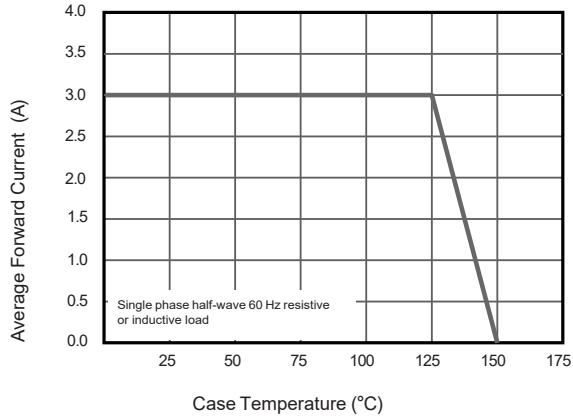


Fig.2 Typical Reverse Characteristics

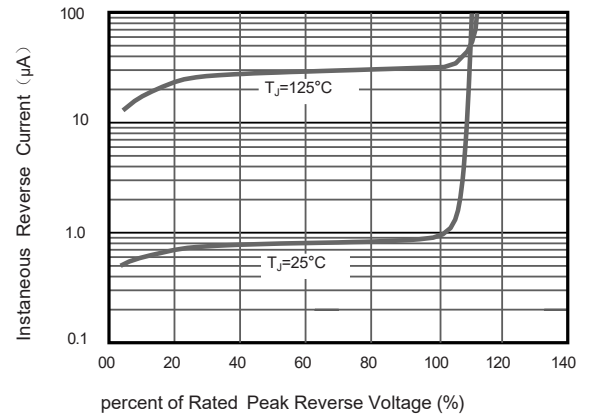


Fig.3 Typical Instantaneous Forward Characteristics $T_J = 25^\circ\text{C}$

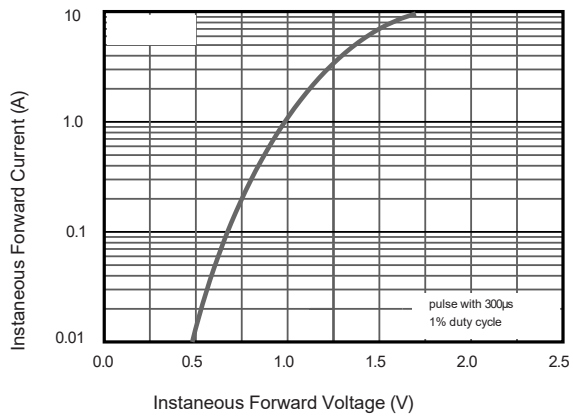


Fig.4 Typical Junction Capacitance

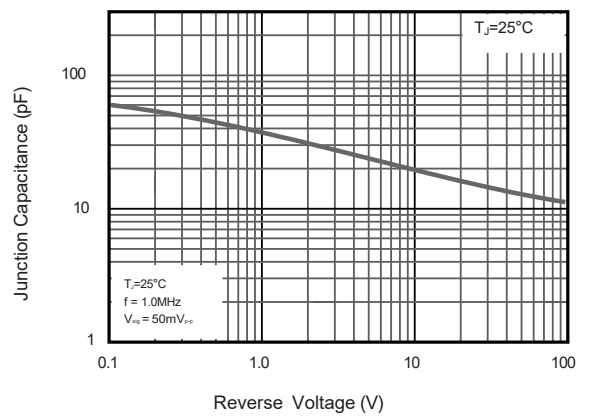
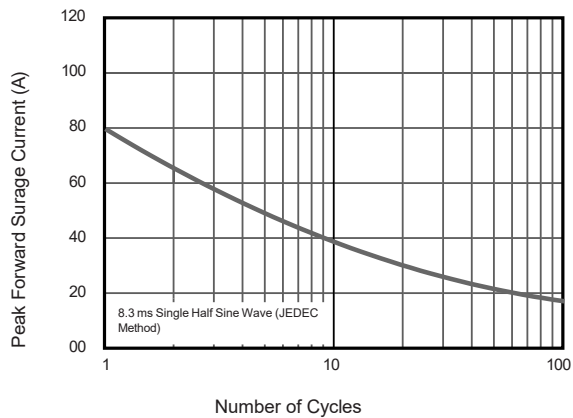


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current



The curve above is for reference only.