



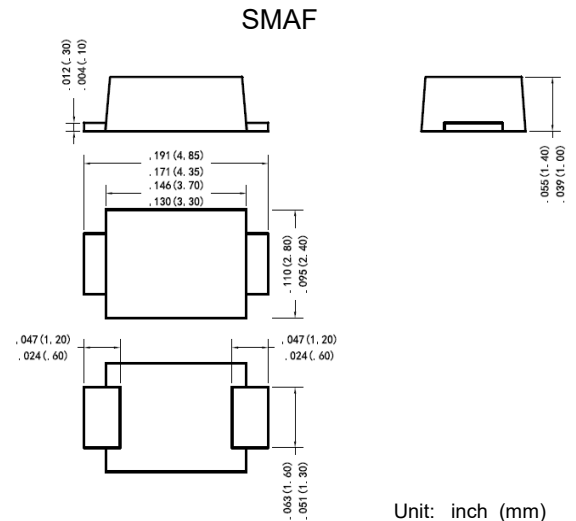
Surface Mount Fast Recovery Rectifier Diode

Feature

- Glass passivated junction chip
- Ideal for automated placement
- Built-in strain relief
- Fast switching for fast recovery
- High forward surge capability
- AEC-Q101 qualified
- Meets MSL level 1, per J-STD-020, LF maximum peak of 260°C

Mechanical Data

- **Package:** SMAF
Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant, halogen-free
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** Cathode line denotes the cathode end



Maximum Ratings and Characteristics (T_A=25°C unless otherwise noted)

Parameter	Symbol	RS3A AFQ	RS3B AFQ	RS3D AFQ	RS3G AFQ	RS3J AFQ	RS3K AFQ	RS3M AFQ	Unit
Maximum repetitive peak reverse voltage	V _{RRM}	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	I _{F(AV)}	3.0							A
Non-repetitive peak forward surge current 8.3 ms singlehalf sine-wave	I _{FSM}	80							A
Maximum forward voltage@I _F =3.0A	V _F	1.3							V
Maximum reverse current@V _{DC} T_A= 25°C T_A= 125°C	I _R	5							μA
		100							
MAX. reverse recovery time I _F =0.5A , I _R =1.0A ,I _{RR} =0.25A	T _{RR}	150				250	500		nS
Typical thermal resistance (Note 1)	R _{θJA}	85							°C/W
Type junction capacitance V _R =4.0V,f=1MHz	C _J	45							pF
Operating junction and storage temperature rang	T _J , T _{STG}	-55 to +150							°C

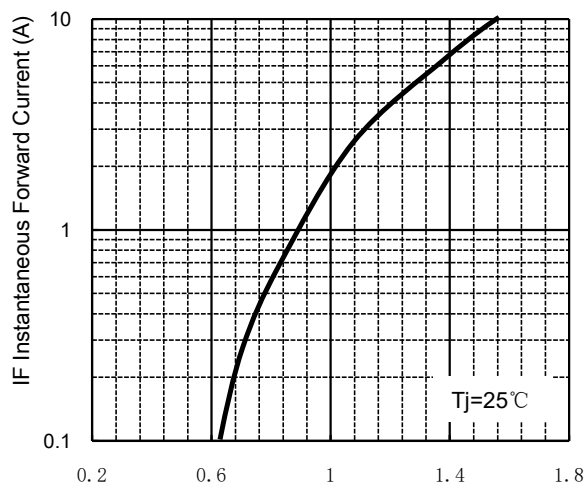
Note:

- 1) Thermal resistance from junction to ambient, PCB mounted.



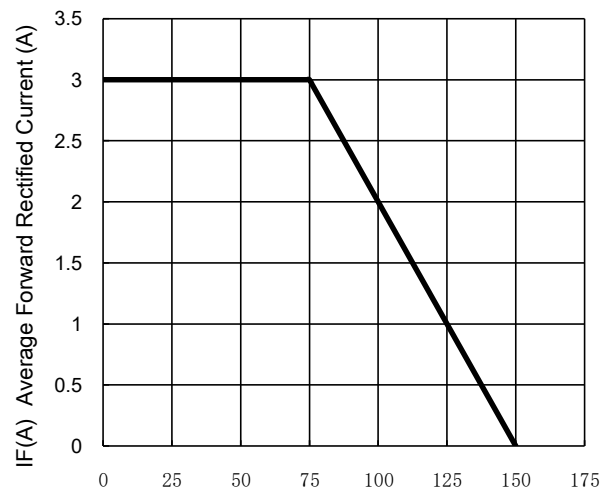
Characteristic Curves

TYPICAL FORWARD CHARACTERISTIC



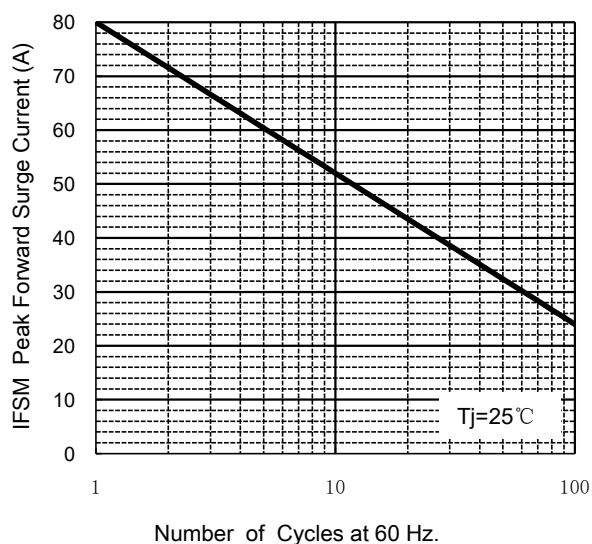
VF Instantaneous Forward Voltage (V)

FORWARD CURRENT DERATING CURVE



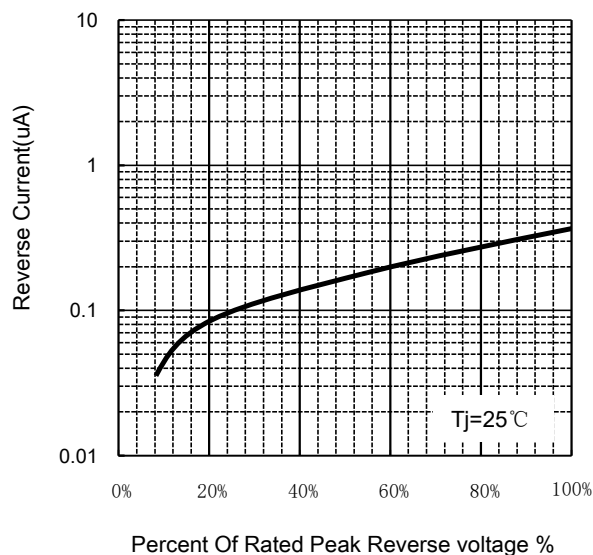
TL, Lead temperature (°C)

MAXIMUM NON REPETITIVE PEAK
FORWARD SURGE CURRENT



Number of Cycles at 60 Hz.

TYPICAL REVERSE CHARACTERISTICS



Percent Of Rated Peak Reverse voltage %