

# FR3MF-HAF

## Surface Mount Fast Recovery Rectifier

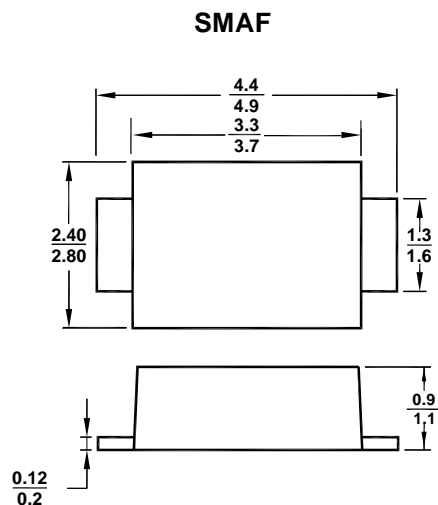
Reverse Voltage - 1000 V  
Forward Current - 3 A

### Features

- Glass Passivated Chip Junction
- For surface mounted applications
- Low profile package
- Fast reverse recovery time
- Halogen and Antimony Free(HAF), RoHS compliant

### Mechanical Data

- **Case:** SMAF
- **Terminals:** Solderable per MIL-STD-750, Method 2026



All Dimensions in mm

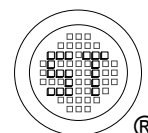
### Absolute Maximum Ratings and Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

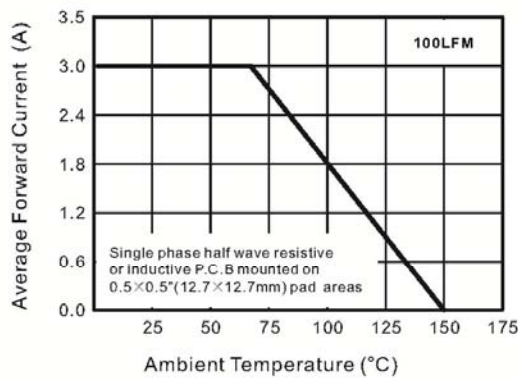
Single phase half-wave 60 Hz, resistive or inductive load, for capacitive load current derate by 20%.

Parameter	Symbols	FR3MF	Units
	Marking	FR3M	-
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	1000	V
Maximum RMS Voltage	$V_{RMS}$	700	V
Maximum DC Blocking Voltage	$V_{DC}$	1000	V
Maximum Average Forward Rectified Current at $T_a = 65^\circ\text{C}$	$I_{F(AV)}$	3	A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method)	$I_{FSM}$	90	A
Maximum Forward Voltage at 3 A	$V_F$	1.3	V
Maximum Reverse Current at Rated DC Blocking Voltage $T_a = 25^\circ\text{C}$ $T_a = 125^\circ\text{C}$	$I_R$	5 150	$\mu\text{A}$
Maximum Reverse Recovery Time at $I_F = 0.5\text{ A}$ , $I_R = 1\text{ A}$ , $I_{rr} = 0.25\text{ A}$	$t_{rr}$	300	ns
Typical Junction Capacitance at $V_R = 4\text{ V}$ , $f = 1\text{ MHz}$	$C_j$	60	pF
Typical Thermal Resistance <sup>1)</sup>	$R_{\theta JA}$	60	$^\circ\text{C/W}$
Operating Junction and Storage Temperature Range	$T_j, T_{stg}$	- 55 to + 150	$^\circ\text{C}$

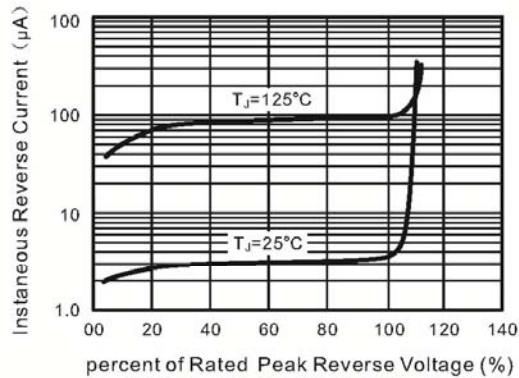
<sup>1)</sup> P.C.B. mounted with 0.5 X 0.5" (12.7 X 12.7 mm) copper pad areas.



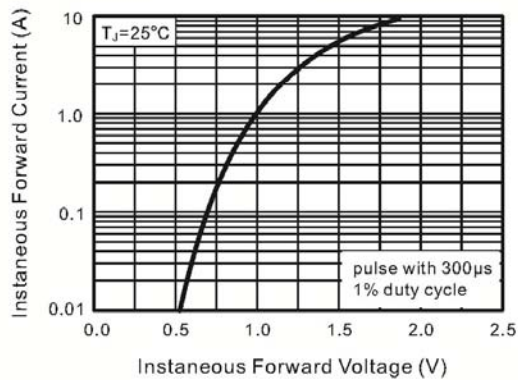
Forward Current Derating Curve



Typical Reverse Characteristics



Typical Instaneous Forward Characteristics



Typical Junction Capacitance

