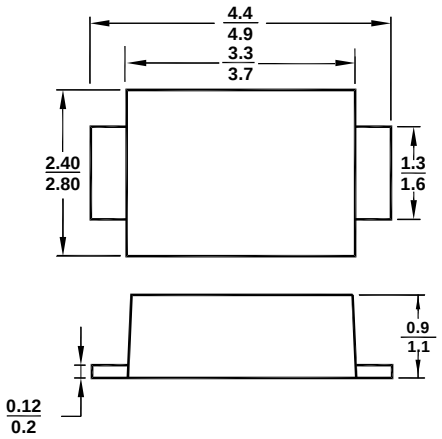
S3AF THRU S3MF

SURFACE MOUNT GENERAL PURPOSE SILICON RECTIFIER

Reverse Voltage – 50 to 1000 V
Forward Current – 3 A

SMAF



All Dimensions in mm

Features

- Glass Passivated Chip Juntion
- For surface mount applications
- Low profile package
- Easy pick and place

Mechanical Data

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

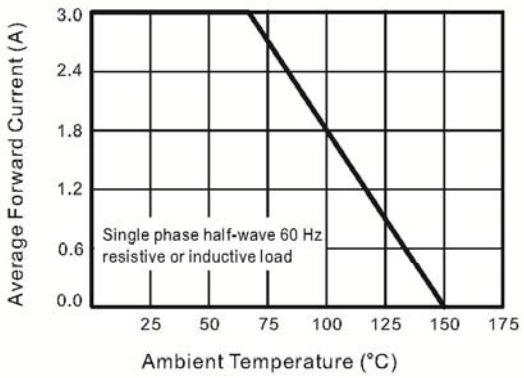
Maximum Ratings and Electrical Characteristics

Ratings at 25℃ ambient temperature unless otherwise specified. Single phase half-wave 60 Hz, resistive or inductive load, for capacitive load current derate by 20%.

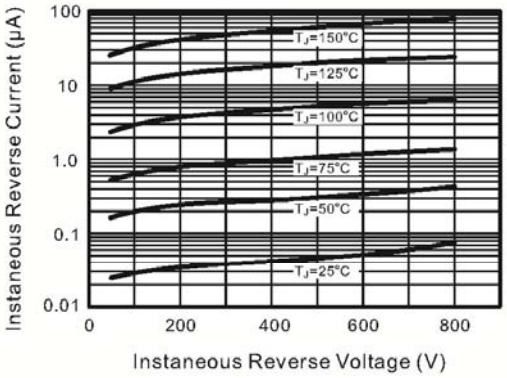
Parameter	Symbols	S3AF	S3BF	S3DF	S3GF	S3JF	S3KF	S3MF	Units
	Marking	S3A	S3B	S3D	S3G	S3J	S3K	S3M	-
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current at T_a = 65°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}	100							A
Maximum Forward Voltage at 3 A	V_F	1.2							V
Maximum DC Reverse Current T_a = 25°C at Rated DC Blocking Voltage T_a = 125°C	I_R	5 250							μA
Typical Junction Capacitance at V_R = 4 V, f = 1 MHz	C_J	53							pF
Typical Thermal Resistance [1]	$R_{\theta JA}$	13 47							°C/W
Operating and Storage Temperature Range	T_j, T_{stg}	- 55 to + 150							°C

[1] P.C.B. mounted with 0.2 X 0.2" (5 X 5 mm) copper pad areas.

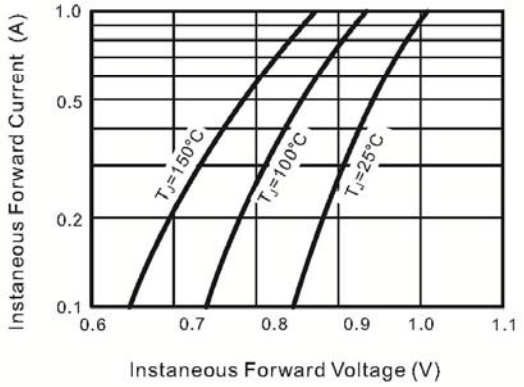
Forward Current Derating Curve



Typical Instaneous Reverse Characteristics



Typical Forward Characteristic



Typical Junction Capacitance