

M7F

ROHS

Surface Mount General Purpose Silicon Rectifier

Features

- ◆ For surface mounted applications
- ◆ Low profile package
- ◆ Glass passivated chip junction
- ◆ Easy to pick and place
- ◆ Lead free in comply with EU RoHS 2011/65/EU directives

Mechanical Data

- ◆ Case: SMAF
- ◆ Quantity Per Reel : 3,000pcs
- ◆ Approx. Weight : 27mg / 0.00095oz
- ◆ Terminals: Solderable per MIL-STD-750, Method 2026
- ◆ Device Marking: M7

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%.

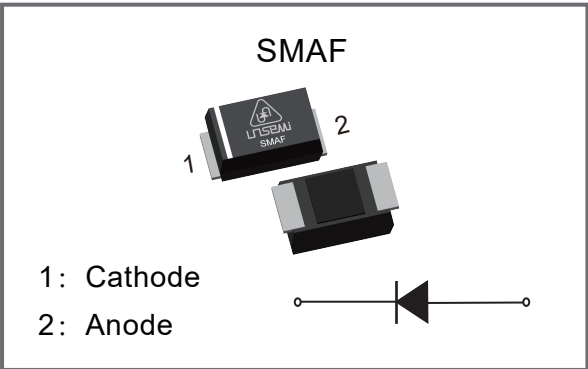
Parameter		Symbol	Value	Units
Maximum Repetitive Peak Reverse Voltage		VRRM	1000	V
Maximum RMS Voltage		VRMS	700	V
Maximum DC Blocking Voltage		VDC	1000	V
Maximum Average Forward Rectified Current at Tc =125°C		IF(AV)	1.0	A
Peak Forward Surge Current,8.3ms Single Half Sine-wave Superimposed on Rated Load		IFSM	30	A
Max Instantaneous Forward Voltage at 1A		VF	1.1	V
Maximum DC Reverse Current at Rated DC Reverse Voltage	Ta=25°C	IR	5.0	μA
	Ta=125°C	IR	50	
Typical Junction Capacitance ⁽¹⁾		Cj	15	pF
Typical Thermal Resistance ⁽²⁾		RθJA	80	°C/W
Operating Junction Temperature Range		TJ	-55 ~ +150	°C
Storage Temperature Range		Tstg	-55 ~ +150	°C

Note: (1) Measured at 1MHz and applied reverse voltage of 4VDC.

(2) P.C.B. mounted with 2.0" X 2.0" (5 X 5cm) copper pad areas.



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Electrical Characteristics Curves

Fig.1 Forward Current Derating Curve

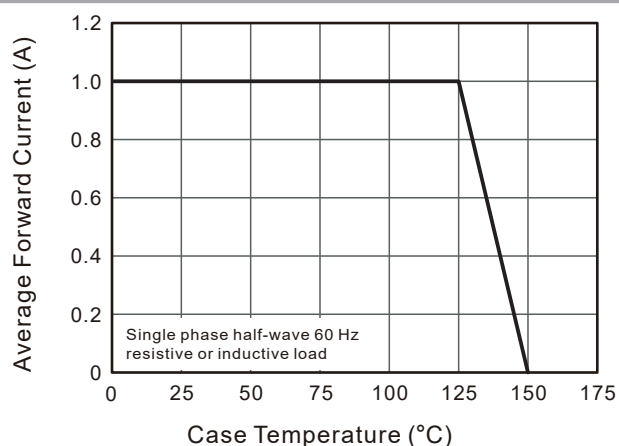


Fig. 2 Typical Instaneous Reverse Characteristics

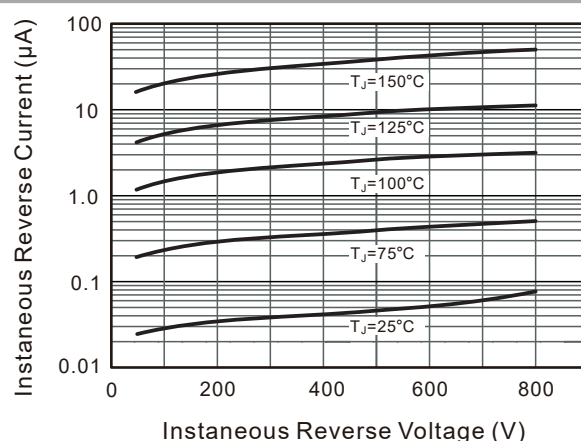


Fig.3 Typical Forward Characteristic

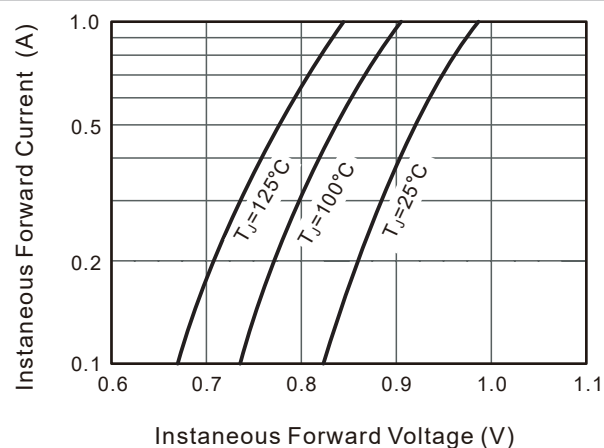


Fig. 4 Typical Junction Capacitance

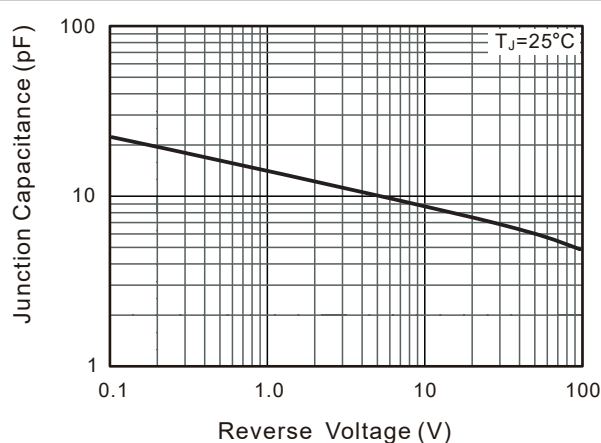
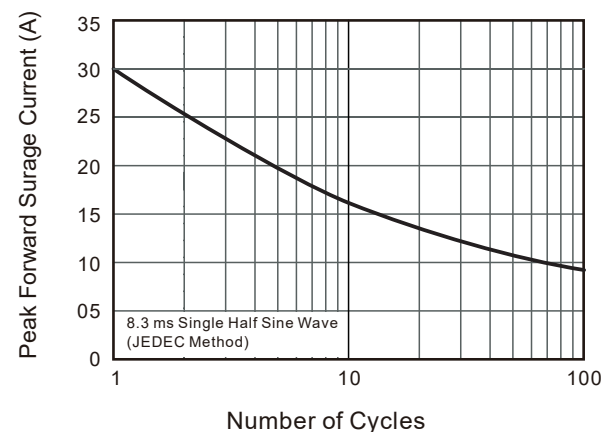
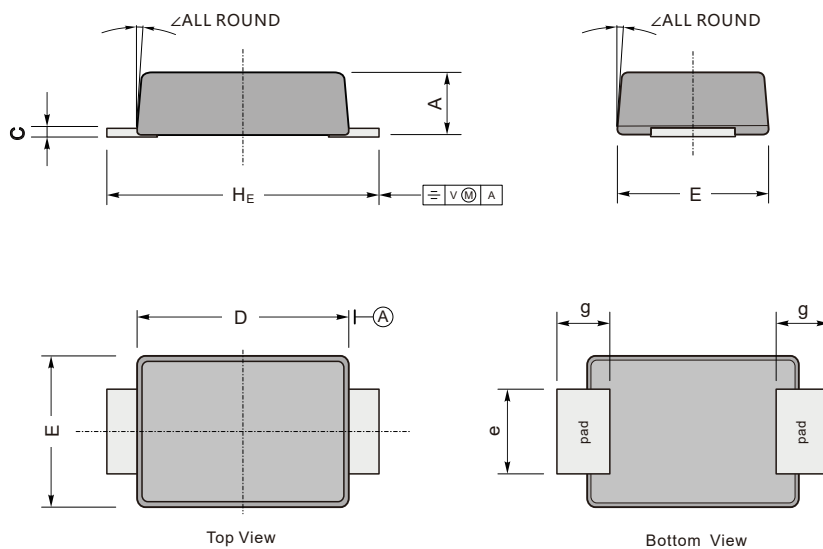


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current



Package Outline & Dimensions



UNIT		A	C	D	E	e	g	HE	∠
mm	max	1.2	0.20	3.7	2.7	1.6	1.2	4.9	7°
	min	0.9	0.12	3.3	2.4	1.3	0.8	4.4	
mil	max	47	7.9	146	106	63	47	193	
	min	35	4.7	130	94	51	31	173	

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