1.0 Amp. Surface Mount Glass Passivated Rectifier

Power SMD1 / Micro SMA

Voltage	Current
200 V to 600 V	1.0 A

FEATURES

- Very Low profile package
- Ideal for automated placement
- Low forward voltage drop
- High forward surge current capability
- Solder dip 260°C, 10s
- Component in accordance to RoHS 2011/65/EU and WEEE 2002/96/EC
- Meets MSL level 1, per J-STD-020, LF maximum peak of 260° C
- Low leakage current

AUTOMOTIVE GRADE Available

RoHS COMPLIANT

MECHANICAL DATA

- **Case:** Power SMD1 / Micro SMA. Epoxy meets UL 94V-0 flammability rating.
- **Polarity:** Color band denotes cathode end.
- **Terminals:** Matte tin plated leads, solderable per MIL-STD-750 Method 2026, J-STD-002 and JESD22-B102. Consumer grade, meets JESD 201 class 1A whisker test. HE3 suffix for high reliability grade (AEC Q101 qualified), meets JESD 201 class 2 whisker test.

TYPICAL APPLICATIONS

Used in general purpose rectification of power supplies, inverters, converters and freewheeling diodes for consumer, automotive and telecommunication.

Maximun Ratings and Electrical Characteristics at 25°C

		FS1DM	FS1GM	FS1JM
Marking Code		D	E	F
V_{RRM}	Maximum Recurrent Peak Reverse Voltage (V)	200	400	600
V_{RMS}	Maximum RMS Voltage (V)	140	280	420
V_{DC}	Maximum DC Blocking Voltage (V)	200	400	600
$I_{F(AV)}$	Forward current at T_C = 135 °C	1.0 A		
I_{FSM}	8.3 ms. peak forward surge current (Jedec Method)	20 A		
V_F	Maximum Instantaneous Forward Voltage at 1.0A	1.1 V		
I_R	Maximum DC Reverse Current Tc = 25 °C	1 µA		
	at Rated DC Blocking Voltage Tc = 125 °C	50 µA		
T_{rr}	Typical Reverse Recovery Time (0.5/1/0.25A)	1 µs		
C_j	Typical Junction Capacitance (1MHz; -4V)	5 pF		
$R_{th\ (j-l)}$	Typical Thermal Resistance	30 °C/W		
$R_{th\ (j-a)}$	(5x5 mm^2 x 130 µ Copper Area)	110 °C/W		
T_j - T_{stg}	Operating Junction and Storage Temperature Range	-55 to + 175 °C		

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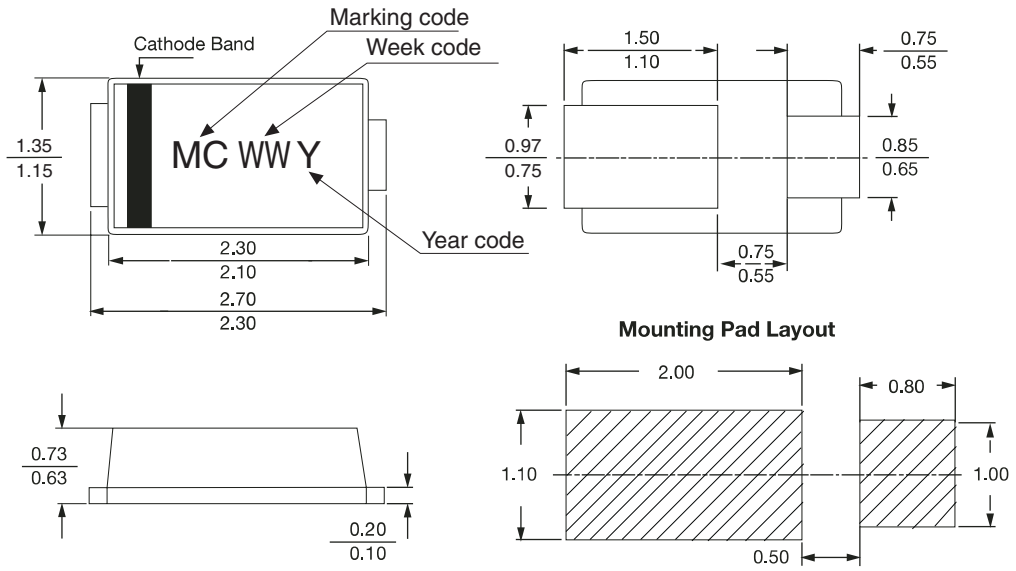
Ordering information

PREFERRED P/N	PACKAGE CODE	DELIVERY MODE	BASE QUANTITY	UNIT WEIGHT (g)
FS1JM TRTB	TRTB	7" diameter tape and reel	3,000	0.064
FS1JM HE3 TRTB	TRTB	7" diameter tape and reel	3,000	0.064

Package Outline Dimensions: (mm) Power SMD1 / Micro SMA



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Ratings and Characteristics (Ta 25 ºC unless otherwise noted)

FIG.1 FORWARD CURRENT DERATING CURVE

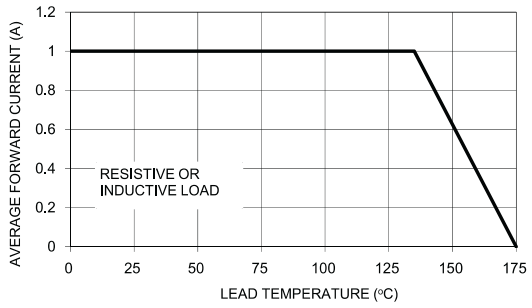


FIG. 2 TYPICAL REVERSE CHARACTERISTICS

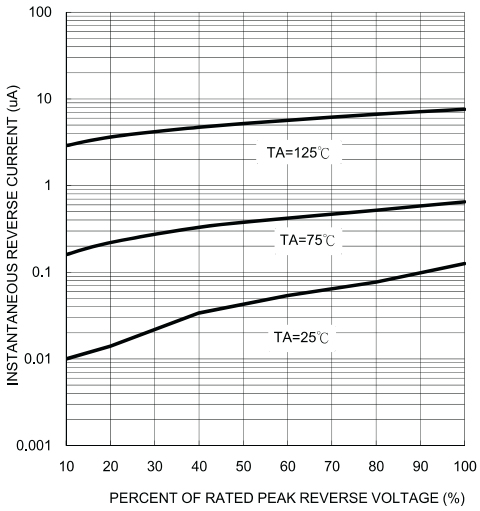


FIG. 3 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

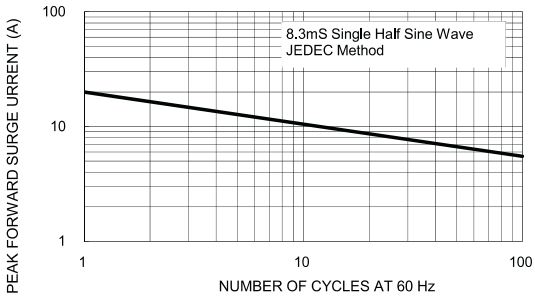


FIG. 5 TYPICAL FORWARD CHARACTERISRICS

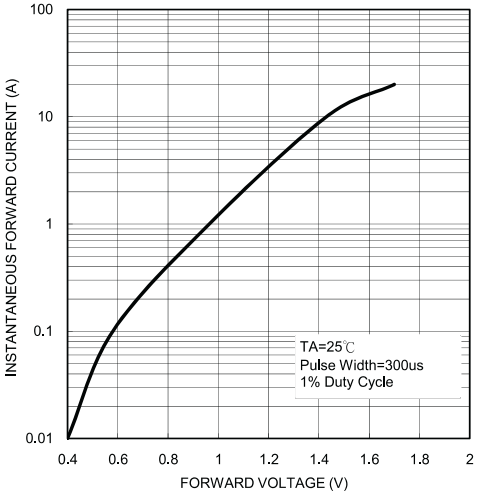


FIG. 4 TYPICAL JUNCTION CAPACITANCE

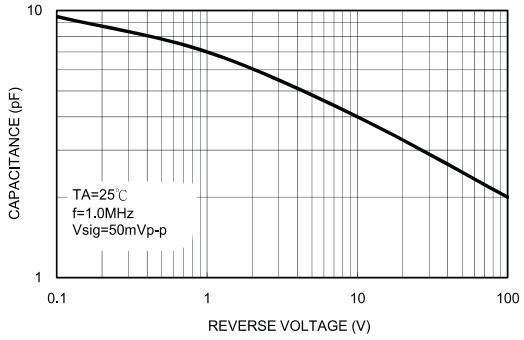
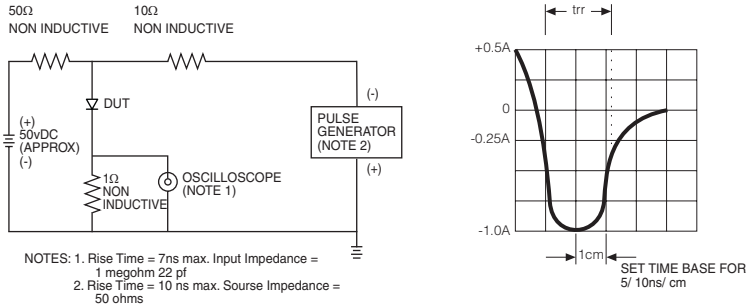


FIG. 6 REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM



NOTES: 1. Rise Time = 7ns max. Input Impedance = 1 megohm 22 pf
2. Rise Time = 10 ns max. Sourse Impedance = 50 ohms

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