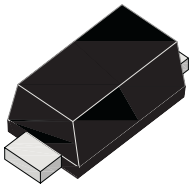
1.0 Amp. Surface Mount Glass Passivated Rectifier

DO-219AA / M1F



Voltage	Current
400 V to 1000 V	1.0 A

FEATURES

- Low profile package
- Ideal for automated placement
- Low power losses, high efficiency
- High surge current capability
- Cavity-free glass-passivated junction
- Low forward voltage drop
- Solder dip 260°C, 10s
- Component in accordance to RoHS 2002/95/EC and WEEE 2002/96/EC
- Meets MSL level 1, per J-STD-020, LF maximum peak of 260° C

Pb

e3

RoHS COMPLIANT

MECHANICAL DATA

- **Case:** DO-219AA / M1F. 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

TYPICAL APPLICATIONS

Used in general purpose rectification of power supplies, inverters, converters and freewheeling diodes application.

Maximum Ratings and Electrical Characteristics at 25 ºC

		FS1GL	FS1JL	FS1ML
Marking Code		SGL	SJL	SML
V_{RRM}	Maximum Recurrent Peak Reverse Voltage (V)	400	600	1000
V_{RMS}	Maximum RMS Voltage (V)	280	420	700
V_{DC}	Maximum DC Blocking Voltage (V)	400	600	1000
$I_{F(AV)}$	Maximum Average Forward Rectified Current @ T_C = 110 °C @ T_C = 75 °C 20ms Square pulse	1.0 A 1.5 A		
I_{FSM}	Peak Forward Surge Current, 8.3 ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	30 A		
V_F	Maximum Instantaneous Forward Voltage @ 1.0A	1.1 V		
I_R	Maximum DC Reverse Current @Tc = 25 °C at Rated DC Blocking Voltage @Tc = 125 °C	5 µA 50 µA		
E_{RSM}	Typical ERSM @ L = 120 mH, Tc = 150 °C	7 mJ		
T_{rr}	Maximum Reverse Recovery Time (0.5/1/0.25A)	1.8 µS		
C_j	Typical Junction Capacitance (1MHz; -4V)	9 pF		
$R_{th\ (j-c)}$ $R_{th\ (j-a)}$	Maximum Thermal Resistance (5x5 mm^2 x 130 µ Copper Area)	25 °C/W 85 °C/W		30 °C/W 85 °C/W
T_j - T_{stg}	Operating Junction and Storage Temperature Range	-55 to + 150 °C		

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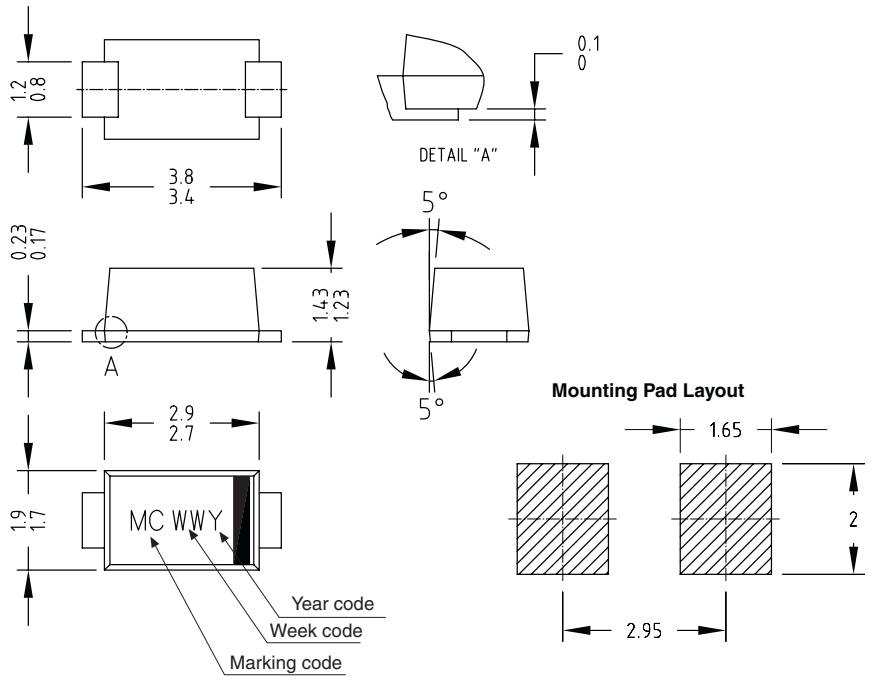
Ordering information

PREFERRED P/N	PACKAGE CODE	DELIVERY MODE	BASE QUANTITY	UNIT WEIGHT (g)
FS1JL TRTB	TRTB	13" diameter tape and reel	7,500	0.0196
FS1JL TRTS	TRTS	8" diameter tape and reel	1,800	0.0196

Package Outline Dimensions: (mm) DO-219AA / M1F



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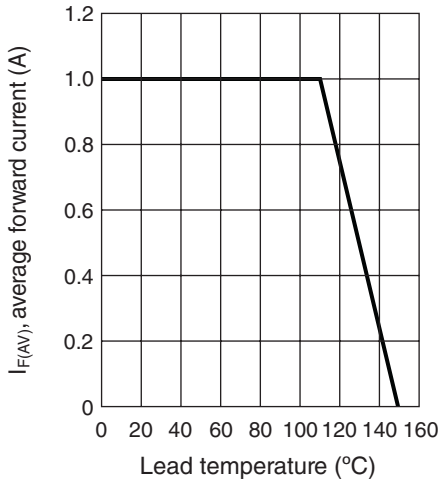
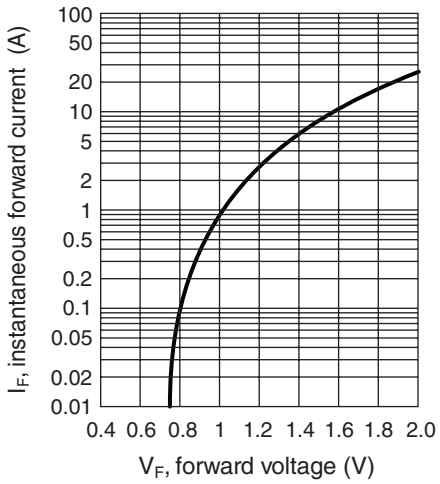
Ratings and Characteristics (Ta 25 ºC unless otherwise noted)

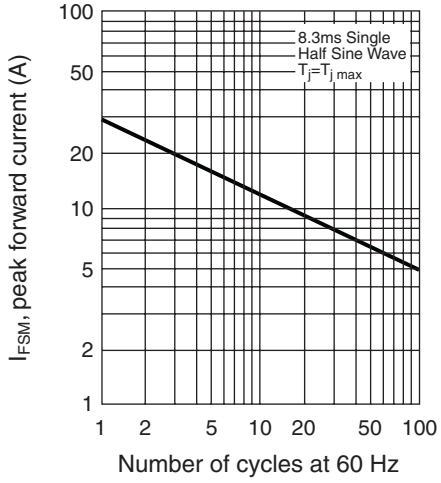
MAXIMUM FORWARD CURRENT DERATING CURVE



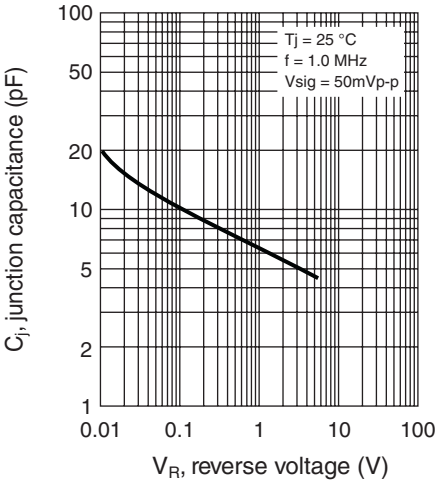
TYPICAL FORWARD CHARACTERISTICS



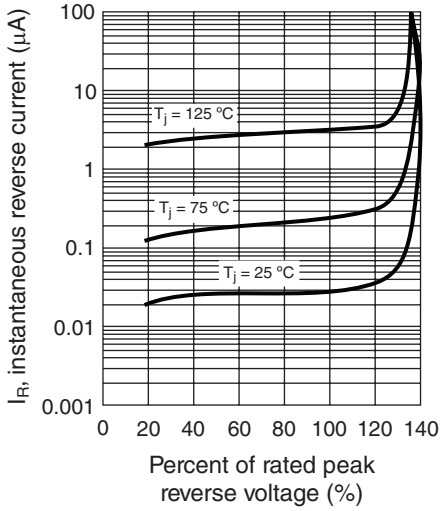
MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT



TYPICAL JUNCTION CAPACITANCE



TYPICAL REVERSE CHARACTERISTICS



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