

DO-219AA / M1F



Voltage Current
50 to 600 V 1.0 A

HYPERECTIFIER

FEATURES

- Low profile package
- Ideal for automated placement
- Ultrafast recovery time for high efficiency
- Low power losses
- Low forward voltage drop
- High forward surge current capability
- 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

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 high frequency rectification and freewheeling application in switching mode converters and inverters for consumer, computer, automotive and telecommunication.

Maximun Ratings and Electrical Characteristics at 25°C

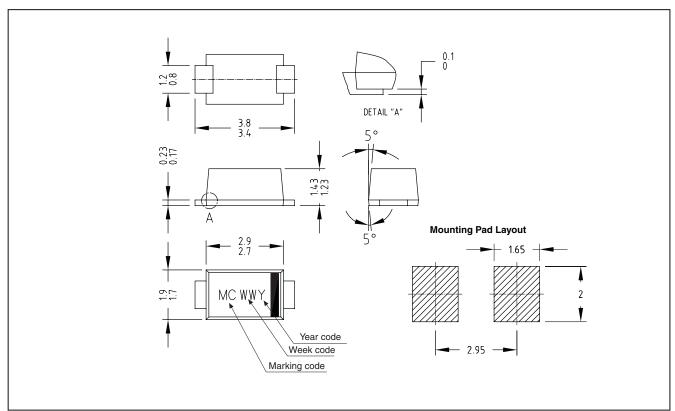
		FES1AL	FES1BL	FES1CL	FES1DL	FES1FL	FES1GL	FES1HL	FES1JL
Marking Code		EAL	EBL	ECL	EDL	EFL	EGL	EHL	EJL
V _{RRM}	Maximum Recurrent Peak Reverse Voltage (V)		100	150	200	300	400	500	600
V _{RMS}	Maximum RMS Voltage (V)	35	70	105	140	210	280	350	420
V_{DC}	Maximum DC Blocking Voltage (V)		100	150	200	300	400	500	600
I _{F(AV)}	Forward current at $T_C = 120 ^{\circ}C$	1.0 A							
I _{FSM}	8.3 ms. peak forward surge current (Jedec Method)	30 A							
V _F	Maximum Instantaneous Forward	0.95 V 1.3 V 1.7 V				7 \ /			
	Voltage at 1.0A					′ V			
I _R	Maximum DC Reverse Current Tj = 25 °C	5 μΑ							
	at Rated DC Blocking Voltage Tj = 100 °C	100 μΑ							
T _{rr}	Maximum Reverse Recovery Time (0.5/1/0.25A)	35 ns							
C _j	Typical Junction Capacitance (1MHz; -4V)	10 pF 8 pF							
R _{th (j-c)}	Maximum Thermal Resistance	85 °C/W							
R _{th (j-a)}	(5x5 mm ² x 130 μ Copper Area)	35 °C/W							
T _j _ T _{stg}	Operating Junction and Storage	-55 to + 150 °C							
	Temperature Range	-55 t0 + 150 C							



Ordering information

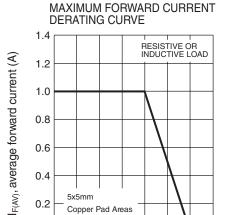
PREFERRED P/N	PACKAGE CODE	DELIVERY MODE	BASE QUANTITY	UNIT WEIGHT (g)
FES1DL TRTB	TRTB	13" diameter tape and reel	7,500	0.015
FES1DL TRTS	TRTS	8" diameter tape and reel	1,800	0.015

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





Ratings and Characteristics (Ta 25 °C unless otherwise noted)



Copper Pad Areas

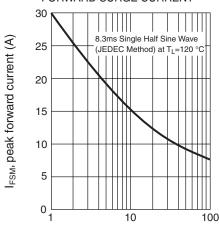
25 50

0



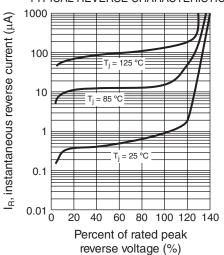
Lead temperature (°C)

75 100 125 150 175

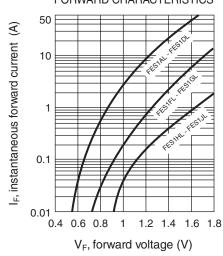


TYPICAL REVERSE CHARACTERISTICS

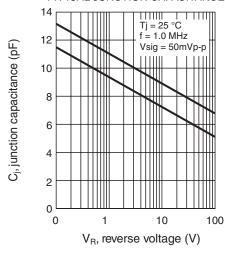
Number of cycles at 60 Hz



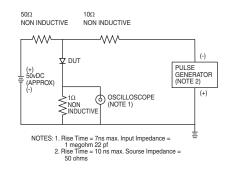
TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

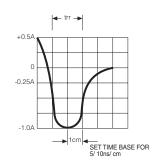


TYPICAL JUNCTION CAPACITANCE



REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM







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