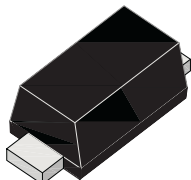




1.0 Amp. Surface Mounted Glass Passivated Ultrafast Recovery Rectifier

| | |
|---|--|
| <p>DO-219AA (M1F)</p>  | <p>Voltage 50 to 600 V</p> <p>Current 1.0 A</p> <p>HYPERECTIFIER [®]</p> |
| <p>FEATURES</p> <ul style="list-style-type: none"> • 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 | |
|   RoHS COMPLIANT | |
| <p>MECHANICAL DATA</p> <ul style="list-style-type: none"> • 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. | |
| <p>TYPICAL APPLICATIONS</p> <p>Used in high frequency rectification and freewheeling application in switching mode converters and inverters for consumer, computer, automotive and telecommunication.</p> | |

Maximun Ratings and Electrical Characteristics at 25°C

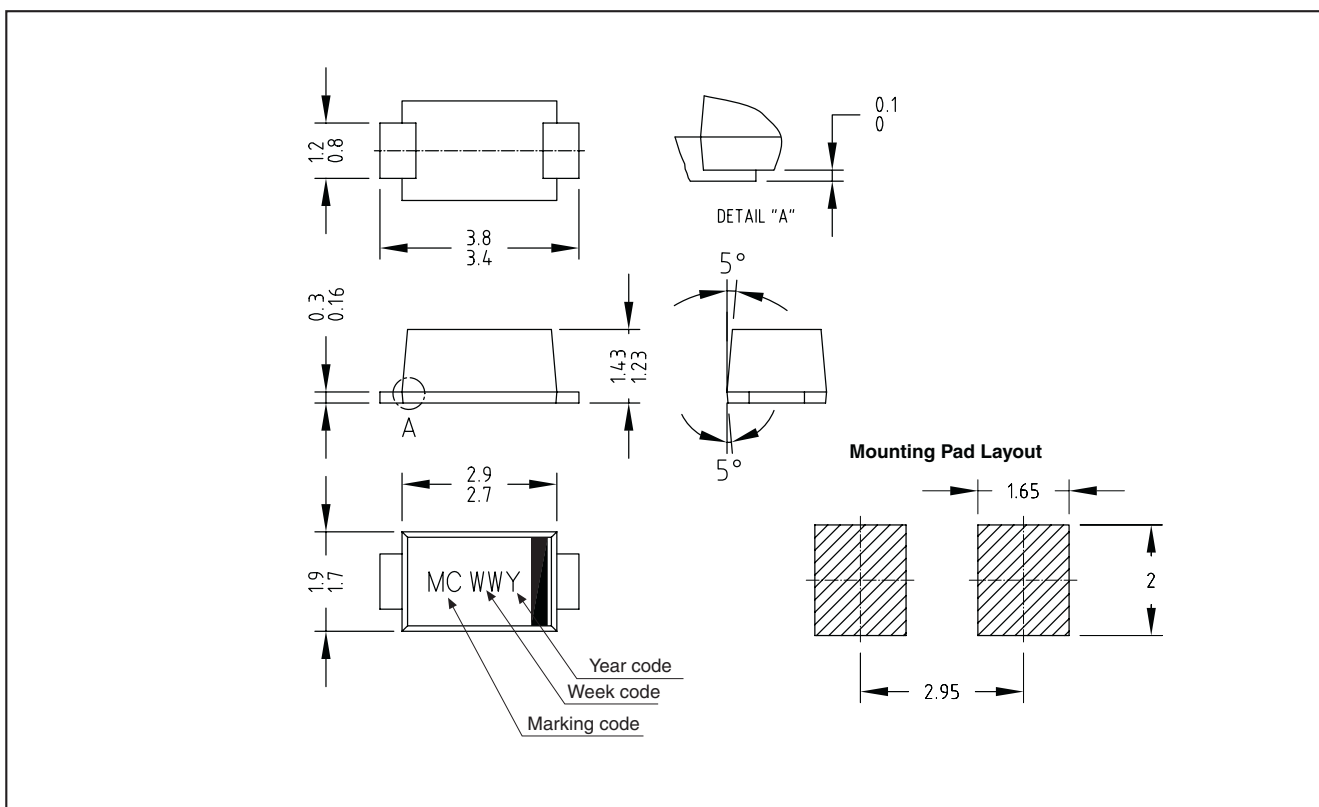
| | | FES1AL | FES1BL | FES1CL | FES1DL | FES1FL | FES1GL | FES1HL | FES1JL |
|--------------------------------|--|------------------------------------|--------|--------|------------------------------------|--------|--------|--------|--------|
| Marking Code | | EAL | EBL | ECL | EDL | EFL | EGL | EHL | EJL |
| V_{RRM} | Maximum Recurrent Peak Reverse Voltage (V) | 50 | 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) | 50 | 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 Voltage at 1.0A | 0.95 V | | | 1.3 V | | 1.7 V | | |
| I_R | Maximum DC Reverse Current at Rated DC Blocking Voltage | $T_j = 25^\circ C$ 5 μA | | | $T_j = 100^\circ C$ 100 μA | | | | |
| T_{rr} | Maximum Reverse Recovery Time (0.5/1/0.25A) | | | | | | | 35 ns | |
| C_j | Typical Junction Capacitance (1MHz; -4V) | 10 pF | | | 8 pF | | | | |
| $R_{th(j-a)}$ $R_{th(j-c)}$ | Maximum Thermal Resistance (5x5 mm ² x 130 μ Copper Area) | 85 $^\circ C/W$ 35 $^\circ C/W$ | | | | | | | |
| $T_j - T_{stg}$ | Operating Junction and Storage Temperature Range | | | | -55 to + 150 $^\circ C$ | | | | |

1.0 Amp. Surface Mounted Glass Passivated Ultrafast Recovery Rectifier

Ordering information

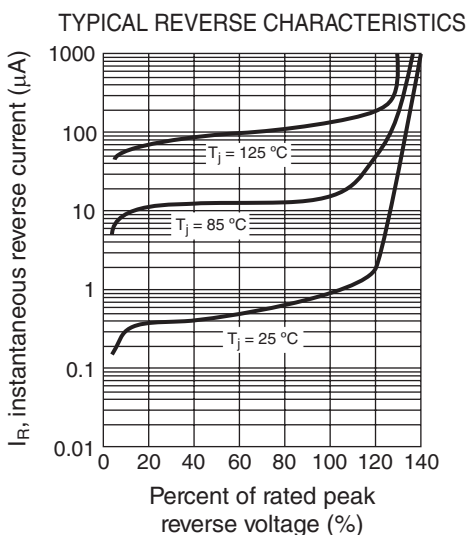
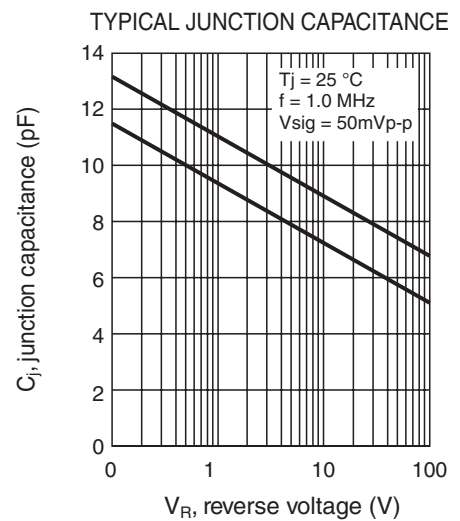
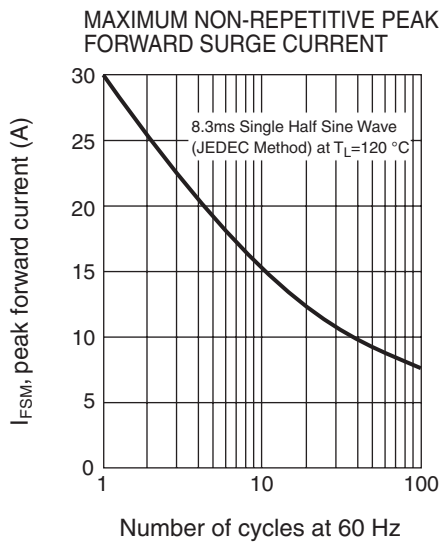
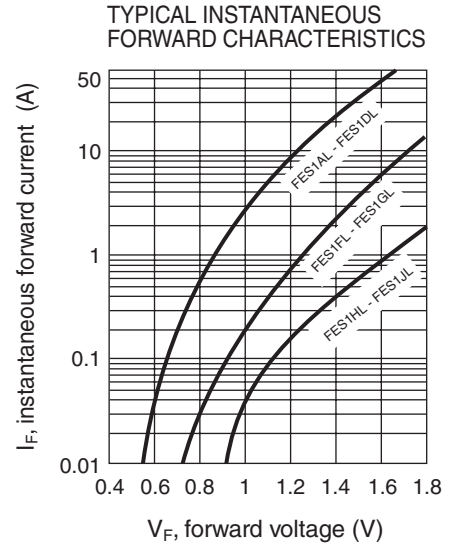
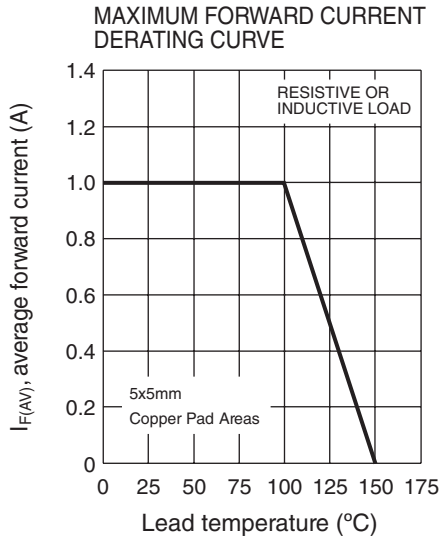
| PREFERRED P/N | PACKAGE CODE | DELIVERY MODE | BASE QUANTITY | UNIT WEIGHT (g) |
|---------------|--------------|----------------------------|---------------|-----------------|
| FES1DL TRTB | TRTB | 13" diameter tape and reel | 7,500 | 0.0196 |
| FES1DL TRTS | TRTS | 8" diameter tape and reel | 1,800 | 0.0196 |

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

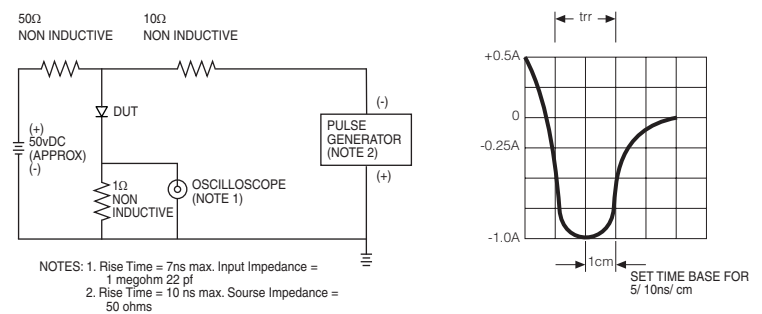


1.0 Amp. Surface Mounted Glass Passivated Ultrafast Recovery Rectifier

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



REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM



1.0 Amp. Surface Mounted Glass Passivated Ultrafast Recovery Rectifier

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