

## 1 Amp. Surface Mounted Glass Passivated Ultrafast Recovery Rectifier

<p><b>Dimensions in mm.</b></p> <p><b>CASE: M1F(DO219AA)</b></p>	<p><b>Voltage</b> 50 to 600 V</p> <p><b>Current</b> 1.0 A</p> <div style="text-align: center; margin: 10px 0;"> </div> <ul style="list-style-type: none"> <li>For surface mounted application</li> <li>Low profile package</li> <li>Low power loss, high efficiency,</li> <li>Ideal for automated placement</li> <li>Glass Passivated chip junction</li> <li>High temperature soldering: 260 °C / 10 seconds at terminals</li> </ul> <p><b>MECHANICAL DATA</b></p> <ul style="list-style-type: none"> <li>Case: Sub SMA plastic case</li> <li>Terminal: Pure tin plated, lead free.</li> <li>Polarity: Color band cathode end</li> <li>Packaging: 12 mm. tape per EIA STD RS-481</li> <li>Weight: 0.015 g.</li> <li>Marking code refer to Note.</li> </ul>
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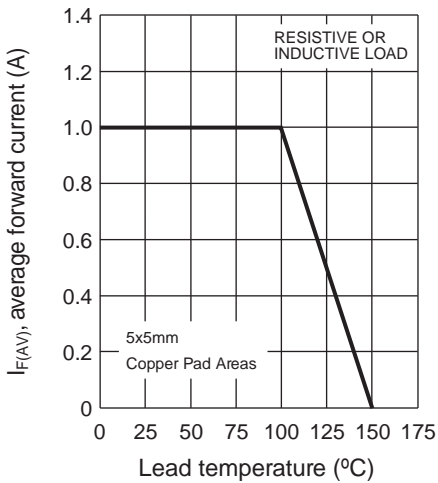
### Maximun Ratings and Electrical Characteristics at 25 °C

Marking Code		FES1AL	FES1BL	FES1CL	FES1DL	FES1FL	FES1GL	FES1HL	FES1JL	
		EALYM	EBLYM	ECLYM	EDLYM	EFLYM	EGLYM	EHLYM	EJLYM	
$V_{RRM}$	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 $T_L = 120\text{ °C}$	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	$T_a = 25\text{ °C}$			$T_a = 100\text{ °C}$					
$T_{rr}$	Maximum Reverse Recovery Time (0.5/1/0.25A)	35 nS								
$C_j$	Typical Junction Capacitance (1MHz; -4V)	10 pF			8 pF					
$R_{th(j-l)}$	Maximum Thermal Resistance (5x5 mm <sup>2</sup> x 130 μ Copper Area)	85 °C/W								
$R_{th(j-a)}$		35 °C/W								
$T_j - T_{stg}$	Operating Junction and Storage Temperature Range	-55 to + 150 °C								

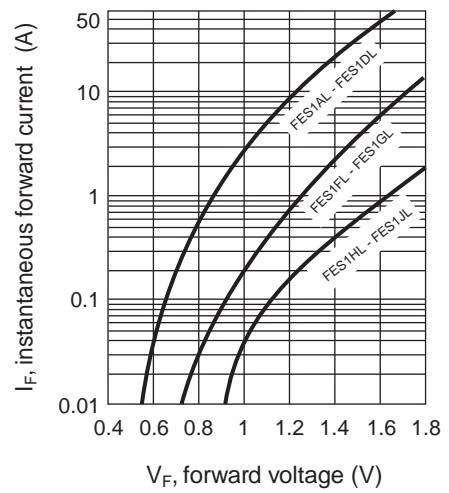
Note: EALYM: E=1A, A=50V, L-LOW Profile, Y-Year Code, M-Month Code

**Rating And Characteristic Curves**

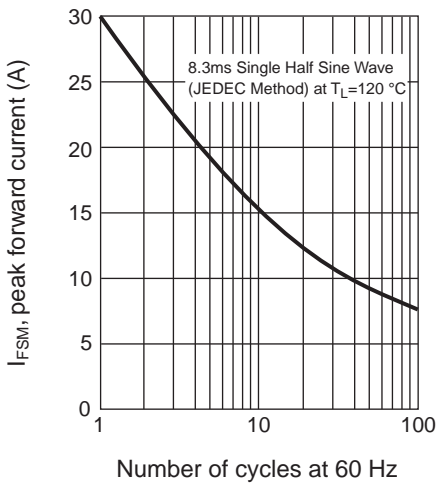
MAXIMUM FORWARD CURRENT DERATING CURVE



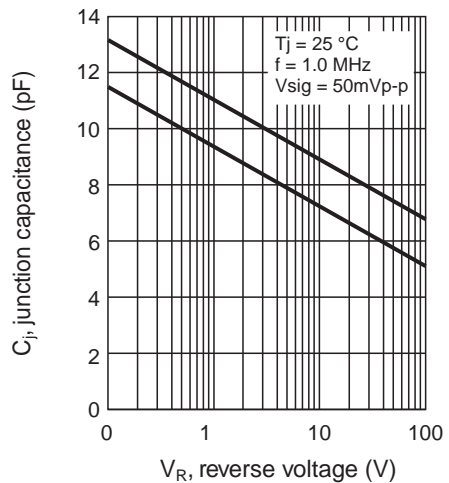
TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



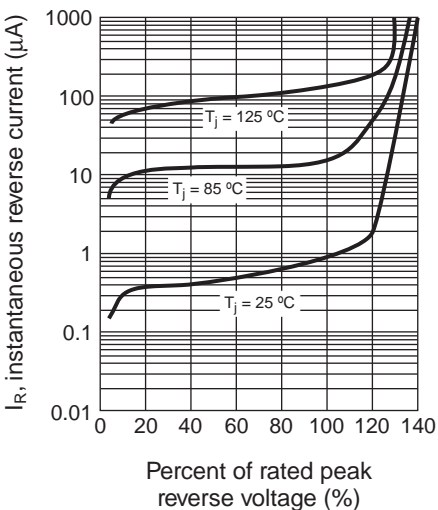
MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT



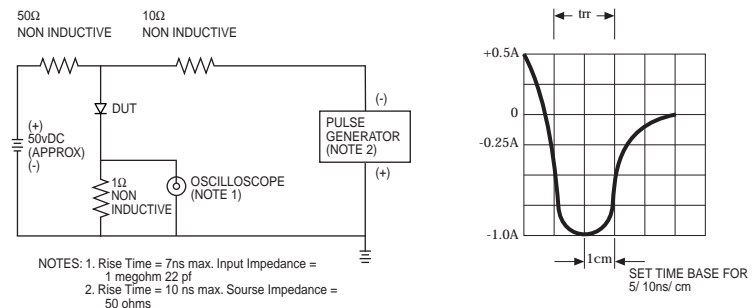
TYPICAL JUNCTION CAPACITANCE



TYPICAL REVERSE CHARACTERISTICS



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. Source Impedance = 50 ohms