

**1.0 Amp. Surface Mount Glass Passivated Ultrafast Recovery Rectifier**

<b>DO-214AC (SMA)</b>  	<b>Voltage</b> 50 to 600 V	<b>Current</b> 1.0 A	
			
	<b>FEATURES</b> <ul style="list-style-type: none"> <li>• Low profile package</li> <li>• Ideal for automated placement</li> <li>• Ultrafast recovery time for high efficiency</li> <li>• Low power losses</li> <li>• Low forward voltage drop</li> <li>• High forward surge current capability</li> <li>• Solder dip 260°C, 10s</li> <li>• AEC-Q101 qualified</li> <li>• Component in accordance to RoHS 2011/65/EU and WEEE 2002/96/EC</li> <li>• Meets MSL level 1, per J-STD-020, LF maximum peak of 260° C</li> </ul>		   <b>RoHS COMPLIANT</b>
	<b>MECHANICAL DATA</b> <ul style="list-style-type: none"> <li>• <b>Case:</b> DO-214AC (SMA). Epoxy meets UL 94V-0 flammability rating.</li> <li>• <b>Polarity:</b> Color band denotes cathode end.</li> <li>• <b>Terminals:</b> 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.</li> <li>• <b>HE3 suffix</b> for high reliability grade, meets JESD 201 class 2 whisker test.</li> </ul>		
<b>TYPICAL APPLICATIONS</b> 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**

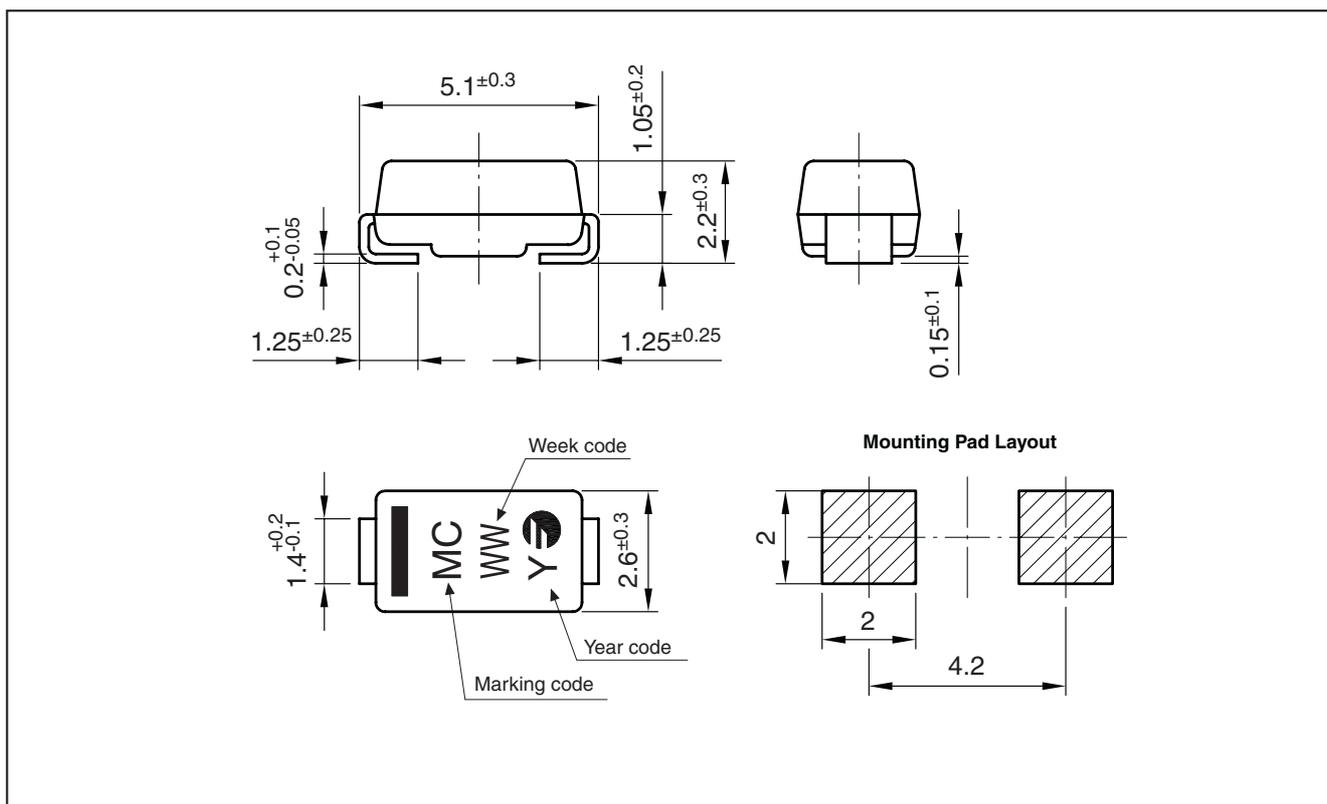
		FES1A	FES1B	FES1D	FES1F	FES1G	FES1J
Marking Code		U1	U2	U3	U4	U5	U6
V <sub>RRM</sub>	Maximum Recurrent Peak Reverse Voltage (V)	50	100	200	300	400	600
V <sub>RMS</sub>	Maximum RMS Voltage (V)	35	70	140	210	280	420
V <sub>DC</sub>	Maximum DC Blocking Voltage (V)	50	100	200	300	400	600
I <sub>F(AV)</sub>	Forward current at T <sub>C</sub> = 110 °C	1.0 A					
I <sub>FSM</sub>	8.3 ms. peak forward surge current (Jedec Method)	30 A					
V <sub>F</sub>	Maximum Instantaneous Forward Voltage at 1.0A	0.95 V			1.25 V		
I <sub>R</sub>	Maximum DC Reverse Current T <sub>j</sub> = 25 °C at Rated DC Blocking Voltage T <sub>j</sub> = 100 °C	5 µA 100 µA					
T <sub>rr</sub>	Maximum Reverse Recovery Time (0.5/1/0.25A)	50 ns					
C <sub>j</sub>	Typical Junction Capacitance (1MHz; -4V)	8 pF					
R <sub>th(j-c)</sub>	Maximum Thermal Resistance	27 °C/W					
R <sub>th(j-a)</sub>	(5x5 mm <sup>2</sup> x 130 µ Copper Area)	75 °C/W					
T <sub>j</sub> - T <sub>stg</sub>	Operating Junction and Storage Temperature Range	-55 to + 150 °C					
E <sub>RSM</sub>	Maximum non repetitive peak reverse Avalanche Energy T <sub>j</sub> = 25°C, I <sub>(BR)R</sub> = 1A	20 mJ					

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**Ordering information**

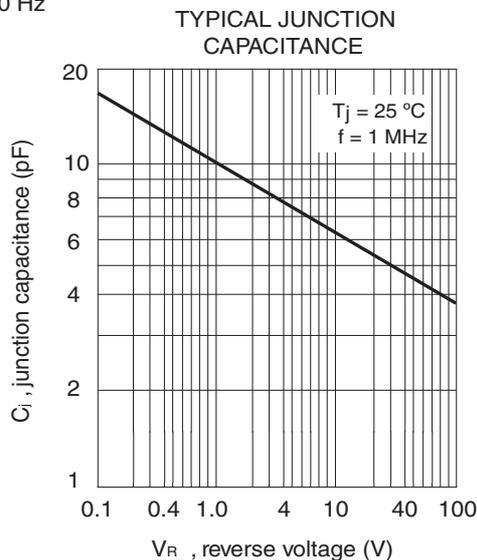
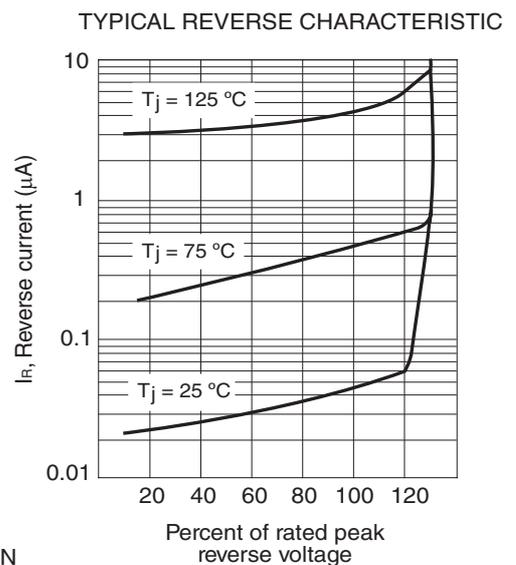
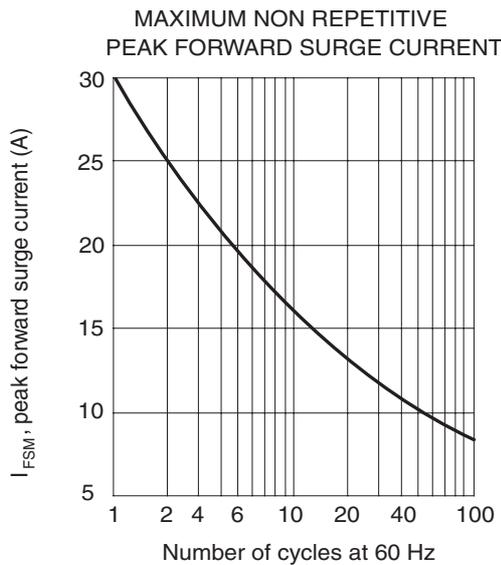
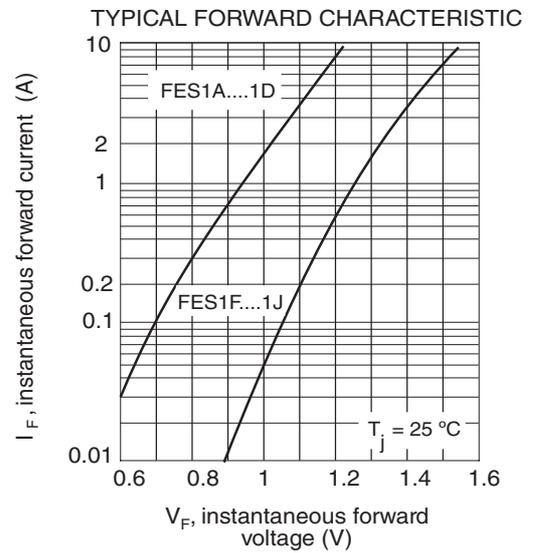
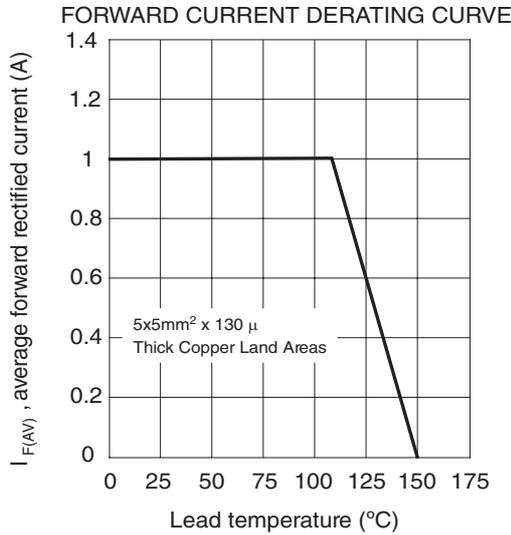
PREFERRED P/N	PACKAGE CODE	DELIVERY MODE	BASE QUANTITY	UNIT WEIGHT (g)
FES1J TRTB	TRTB	13" diameter tape and reel	7,500	0.060
FES1J HE3 TRTB	TRTB	13" diameter tape and reel	7,500	0.060
FES1J TRTS	TRTS	7" diameter tape and reel	1,500	0.060

**Package Outline Dimensions: (mm) DO-214AC (SMA)**



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



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