






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

<b>DO-214AC (SMA)</b>  	<b>Voltage</b> 200 to 1000 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. HE3 suffix 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**

		FES26A	FES26B	FES26C	FES26D	FES26E	FES26ET	
Marking Code		E1	E2	E3	E4	E5	E6	
$V_{RRM}$	Peak Recurrent Reverse Voltage (V)	200	400	600	800	1000	1000	
$V_{RMS}$	Maximum RMS Voltage (V)	140	280	420	560	700	700	
$V_{DC}$	Maximum DC Blocking Voltage (V)	200	400	600	800	1000	1000	
$I_{F(AV)}$	Average forward current	1 A						
$I_{FRM}$	Recurrent peak forward current	10 A						
$I_{FSM}$	8.3 ms. peak forward surge current (Jedec Method)	30 A						
$t_{rr}$	Max. reverse recovery time from $I_F = 0.5 A ; I_R = 1 A ; I_{RR} = 0.25 A$	30 ns			75 ns		50 ns	
$V_{BR}$	Avalanche breakdown voltage at 100 $\mu A$ (V)	>300	>500	>700	>900	>1050		
$T_j$	Operating temperature range	-65 to + 175 °C						
$T_{stg}$	Storage temperature range	-65 to + 175 °C						
$E_{RSM}$	Maximum non repetitive peak reverse Avalanche Energy $I_R = 1 A ; T_j = 25 ^\circ C$	10 mJ					5 mJ	

**Electrical Characteristics at Tamb = 25 °C**

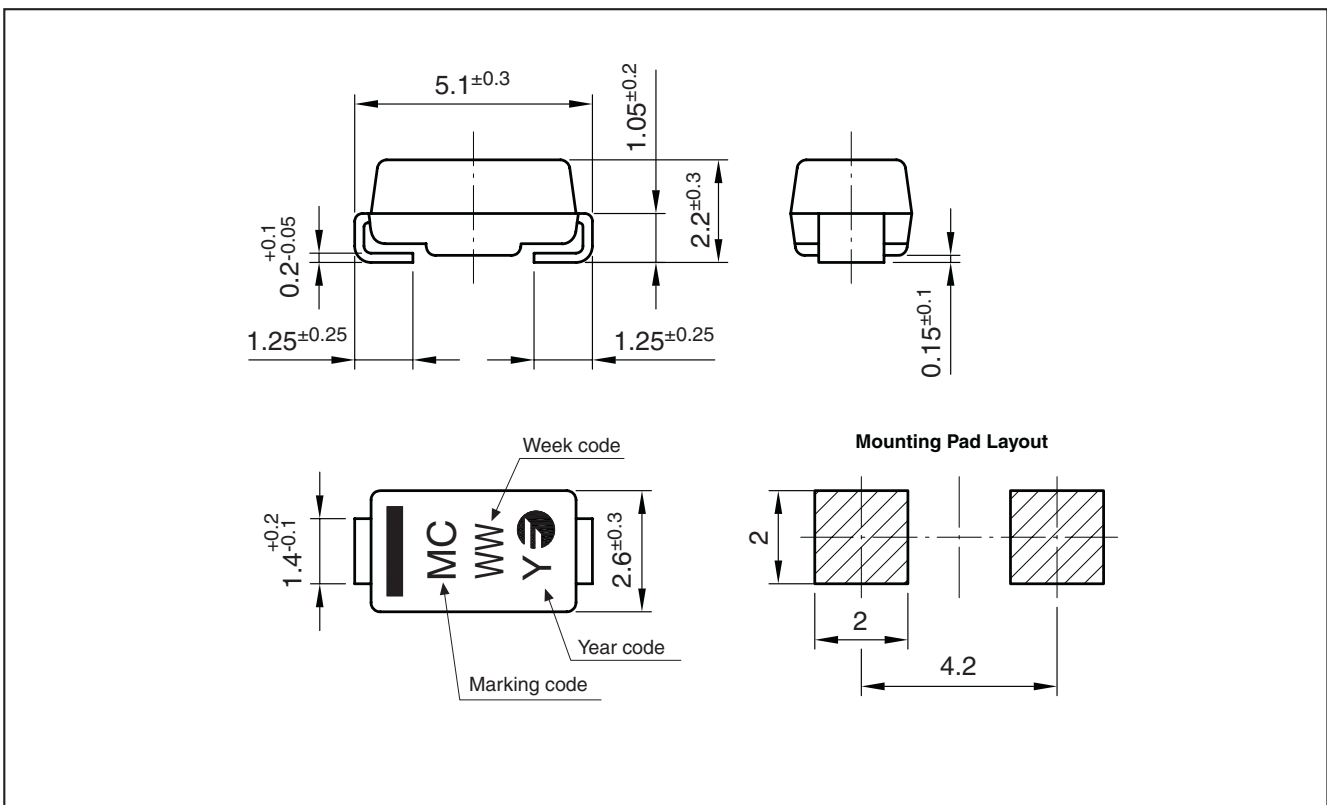
$V_F$	Max. forward voltage drop at $I_F = 1 A$	at 25 °C 2.5 V	at 175 °C 1.3 V	4.0 V 2.85 V
$I_R$	Max. freverse current at $V_{RRM}$	at 25 °C 5 $\mu A$	at 100 °C 100 $\mu A$	
$R_{th(j-l)}$ $R_{th(j-a)}$	Typical thermal resistance (5x5 mm <sup>2</sup> x 130 $\mu m$ Copper Area)	27 °C/W 75 °C/W		

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**Ordering information**

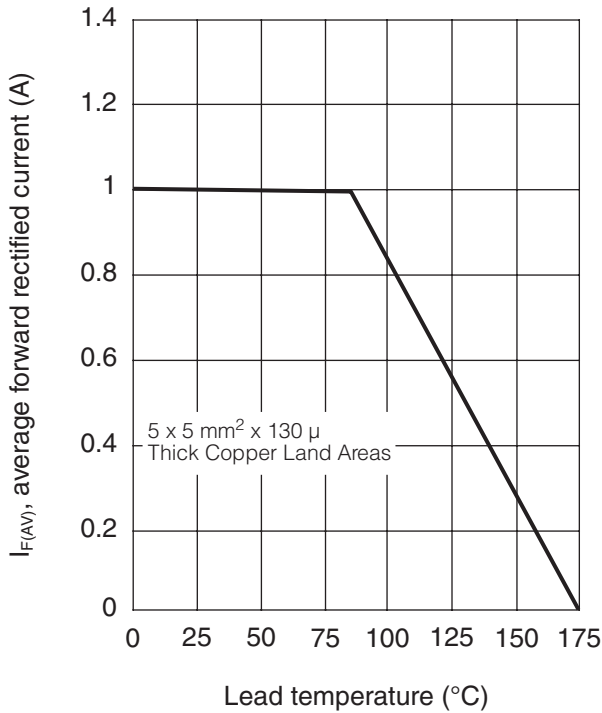
PREFERRED P/N	PACKAGE CODE	DELIVERY MODE	BASE QUANTITY	UNIT WEIGHT (g)
FES26C TRTB	TRTB	13" diameter tape and reel	7,500	0.060
FES26C HE3 TRTB	TRTB	13" diameter tape and reel	7,500	0.060
FES26C TRTS	TRTS	7" diameter tape and reel	1,500	0.060

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

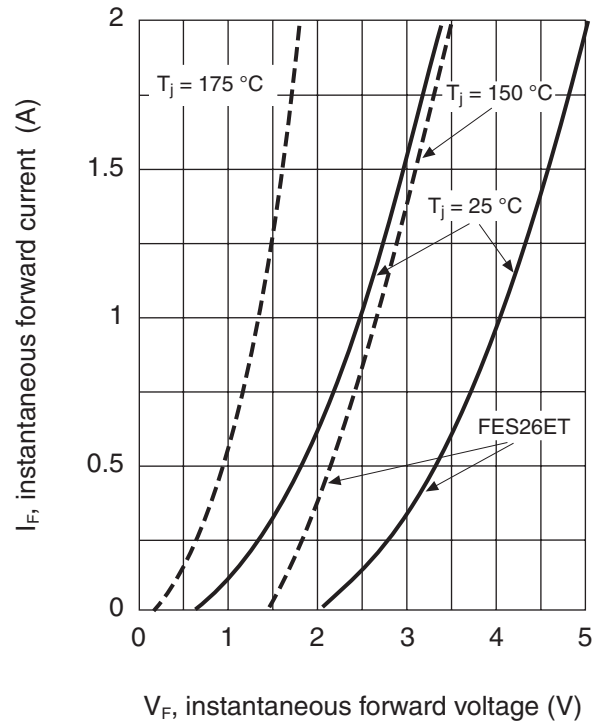


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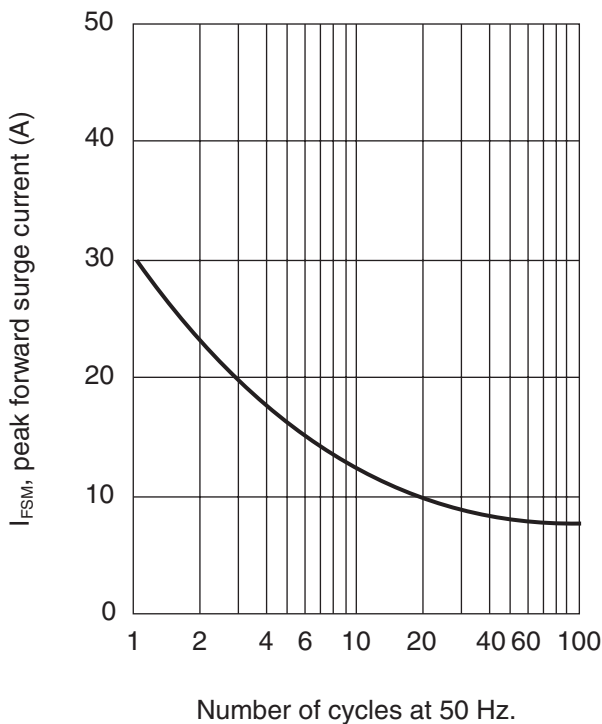
FORWARD CURRENT DERATING CURVE



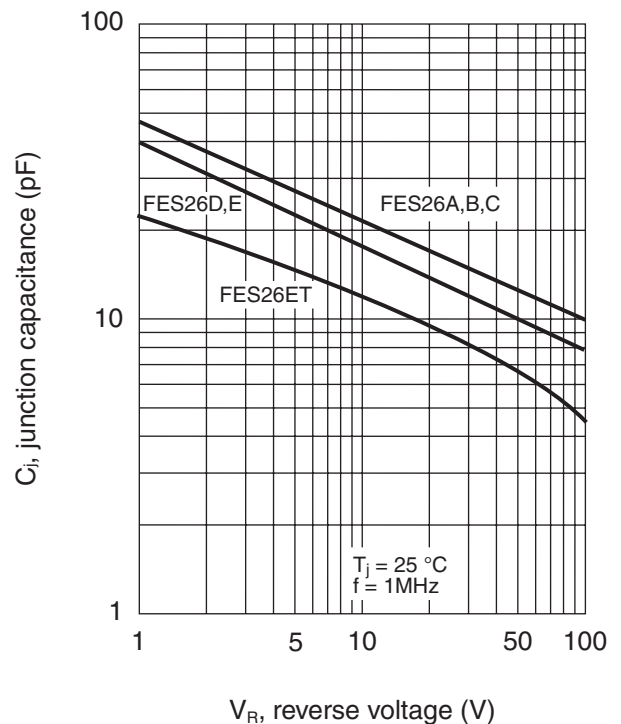
MAXIMUM FORWARD CHARACTERISTIC



MAXIMUM NON REPETITIVE PEAK FORWARD SURGE CURRENT



TYPICAL JUNCTION CAPACITANCE



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