





1.0 Amp. Surface Mount Glass Passivated Avalanche Rectifier

<p style="text-align: center;">DO-214AC / SMA</p> 	<p style="text-align: center;">Voltage 400 V to 1000 V</p> <p style="text-align: center;">Current 1.0 A</p> <p style="text-align: center;">HYPERECTIFIER®</p>
	<p>FEATURES</p> <ul style="list-style-type: none"> • Low profile package • Ideal for automated placement • 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 • Low leakage current <p style="text-align: right;">    RoHS COMPLIANT </p>
	<p>MECHANICAL DATA</p> <ul style="list-style-type: none"> • Case: DO-214AC (SMA). 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. HE3 suffix for high reliability grade (AEC Q101 qualified), meets JESD 201 class 2 whisker test.
	<p>TYPICAL APPLICATIONS</p> <p>Used in general purpose rectification of power supplies, inverters, converters and freewheeling diodes for consumer, automotive and telecommunication.</p>

Maximun Ratings and Electrical Characteristics at 25°C

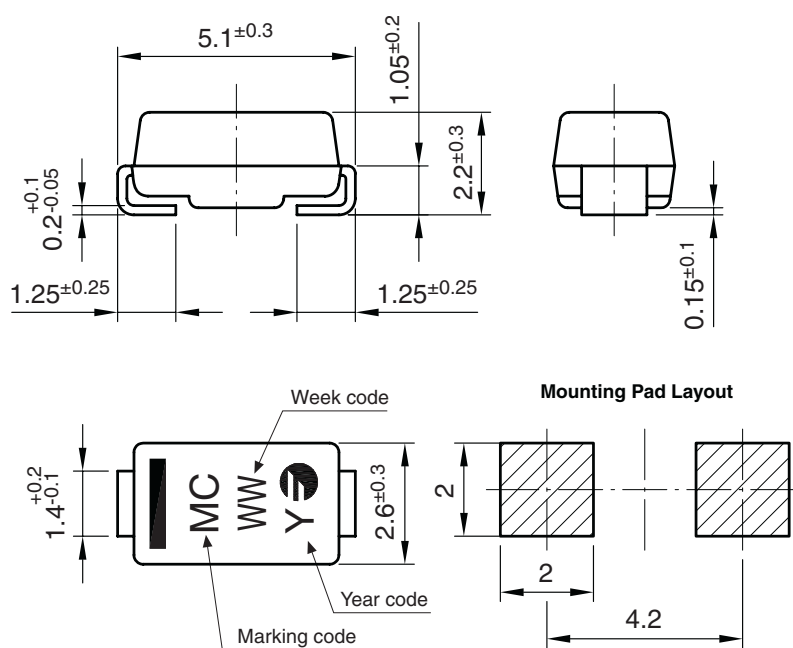
			FS1GE	FS1JE	FS1ME
Marking Code			L6	L7	L8
V _{RRM}	Maximum Recurrent Peak Reverse Voltage (V)		400	600	1000
V _{RMS}	Maximum RMS Voltage (V)		280	420	700
V _{DC}	Maximum DC Blocking Voltage (V)		400	600	1000
I _{F(AV)}	Forward current at T _c = 110 °C		1.0 A		
I _{FSM}	8.3 ms. peak forward surge current (Jedec Method)		30 A		
V _F	Maximum Instantaneous Forward Voltage at 1.0A		1.1 V		
V _{BR}	Breakdown Voltage at I _R = 100 µA	Min.	450 V	650 V	1050 V
		Max.	1400 V		
I _R	Maximum DC Reverse Current at Rated DC Blocking Voltage	T _c = 25 °C	1 µA		
		T _c = 125 °C	50 µA		
T _{rr}	Typical Reverse Recovery Time (0.5 / 1 / 0.25A)		1 µs		
C _j	Typical Junction Capacitance (1MHz; -4V)		16 pF		
R _{th(j-c)}	Typical Thermal Resistance (5x5 mm ² x 130 µ Copper Area)		27 °C/W		
R _{th(j-a)}			75 °C/W		
T _j - T _{stg}	Operating Junction and Storage Temperature Range		-55 to + 150 °C		
E _{RSM}	Maximum non Repetitive Peak Reverse Avalanche energy. I _{R(BR)} = 1 A; T _j = 25 °C		40 mJ		

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Ordering information

PREFERRED P/N	PACKAGE CODE	DELIVERY MODE	BASE QUANTITY	UNIT WEIGHT (g)
FS1JE TRTB	TRTB	13" diameter tape and reel	7,500	0.060
FS1GE HE3 TRTB	TRTB	13" diameter tape and reel	7,500	0.060

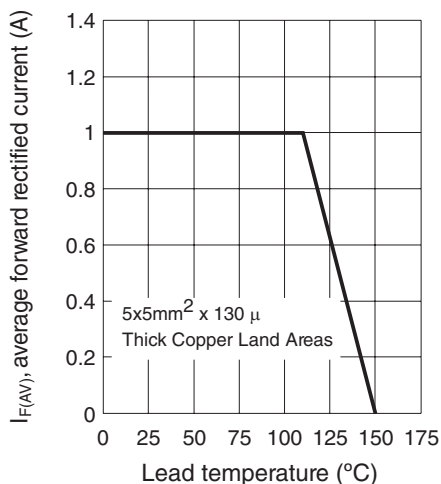
Package Outline Dimensions: (mm) DO-214AC / SMA



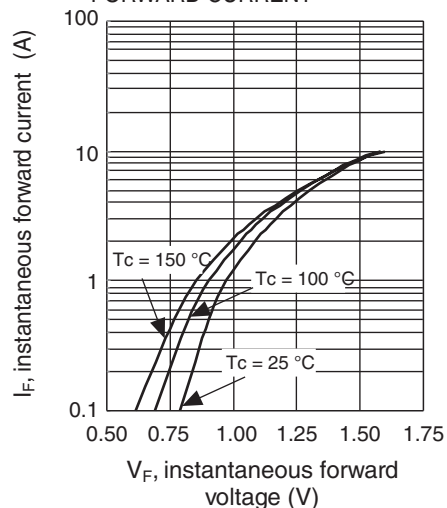
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Ratings and Characteristics (Ta 25 °C unless otherwise noted)

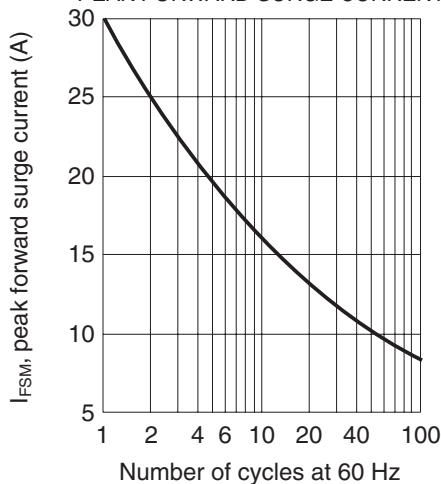
FORWARD CURRENT DERATING CURVE



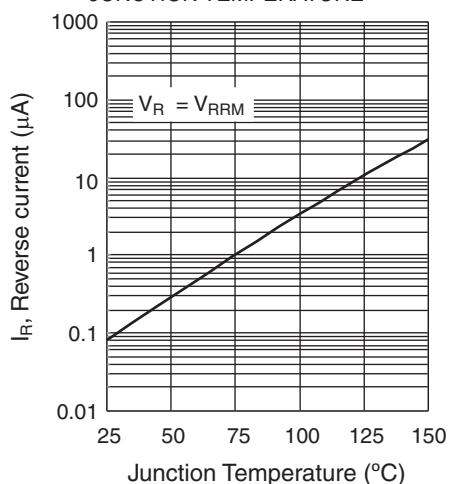
TYPICAL FORWARD VOLTAGE vs. FORWARD CURRENT



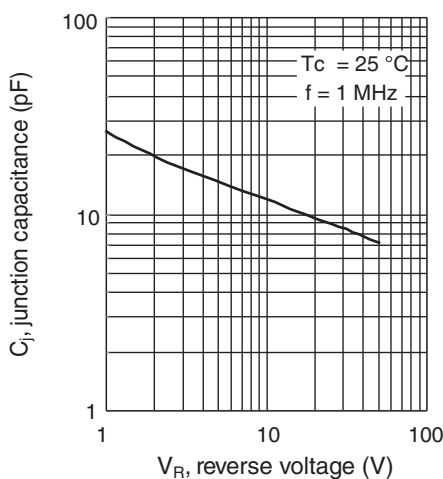
MAXIMUM NON REPETITIVE PEAK FORWARD SURGE CURRENT



TYPICAL REVERSE CURRENT vs. JUNCTION TEMPERATURE



TYPICAL DIODE CAPACITANCE vs. REVERSE VOLTAGE



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