

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

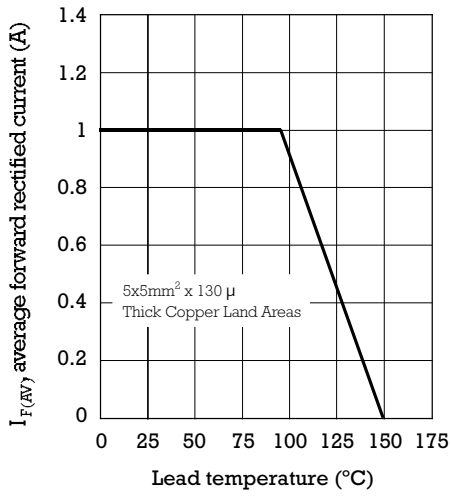
<p><b>Dimensions in mm.</b></p>	<p><b>CASE:</b> SMA/DO-214AC</p>	<p><b>Voltage</b> 50 to 1000 V</p> <p><b>Current</b> 1.0 A</p>
<ul style="list-style-type: none"> <li>• Glass passivated junction</li> <li>• High current capability</li> <li>• The plastic material carries U/L 94 V-0</li> <li>• Low profile package</li> <li>• Easy pick and place</li> <li>• High temperature soldering 260 °C 10 sec</li> </ul>		
<p><b>MECHANICAL DATA</b></p> <p>Terminals: Solder plated, solderable per IEC 68-2-20. Standard Packaging: 4 mm. tape (EIA-RS-481). Weight: 0.064 g.</p>		

### Maximum Ratings and Electrical Characteristics at 25 °C

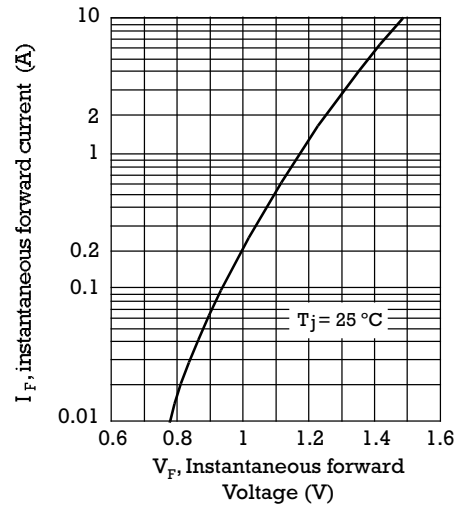
		FRS1A	FRS1B	FRS1D	FRS1G	FRS1J	FRS1K	FRS1M
Marking Code		F1	F2	F3	F4	F5	F6	F7
$V_{RRM}$	Maximum Recurrent Peak Reverse Voltage	50	100	200	400	600	800	1000
$V_{RMS}$	Maximum RMS Voltage	35	70	140	280	420	560	700
$V_{DC}$	Maximum DC Blocking Voltage	50	100	200	400	600	800	1000
$I_{F(AV)}$	Forward current at $T_L = 95\text{ °C}$	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	1.3 V						
$I_R$	Maximum DC Reverse Current at Rated DC Blocking Voltage $T_a = 25\text{ °C}$ $T_a = 125\text{ °C}$	5 $\mu$ A 50 $\mu$ A						
$t_{rr}$	Maximum Reverse Recovery Time (0.5/1/0.25A)	150 ns				250 ns	500 ns	
$C_j$	Typical Junction Capacitance (1MHz; -4V)	8 pF						
$R_{th(j-l)}$ $R_{th(j-a)}$	Typical Thermal Resistance (5x5 mm <sup>2</sup> x 130 $\mu$ Copper Area)	27 °C/W 75 °C/W						
$T_j - T_{stg}$	Operating Junction and Storage Temperature Range	-55 to + 150 °C						

Rating And Characteristic Curves

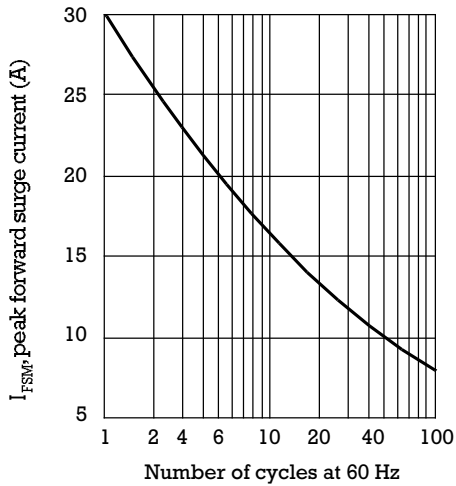
FORWARD CURRENT DERATING CURVE



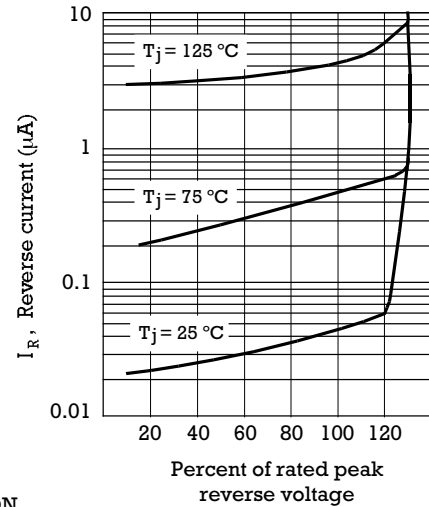
TYPICAL FORWARD CHARACTERISTIC



MAXIMUM NON REPETITIVE PEAK FORWARD SURGE CURRENT



TYPICAL REVERSE CHARACTERISTIC



TYPICAL JUNCTION CAPACITANCE

