



[semiconductors](#)

[company](#)

[product](#)

[sales network](#)

[site index](#)

[contact us](#)

semiconductors :: product :: [Fast Recovery Rectifiers](#)

Product: Fast Recovery Rectifiers

Fast Recovery Rectifiers are devices used in applications where commutation times around 150 ÷ 500ns are required. Switching Power Supplies, Electronic Ballast, Small Household Appliances are some of the typical end uses.

Manufactured using HYPERRECTIFIER® Glass Passivated technology, we offer these devices housed either in leaded packages or SMD.

Product	Family	$I_{F(AV)}$ (A)	I_{FSM} (A)	V_{RRM} (V)	V_F (V)	T_{RR} (ns)	OUTLINE
FRS1G	FRS1	1.0	30	400	1.3	150	DO214AC/SMA

1 Amp. Surface Mounted Glass Passivated Fast Recovery Rectifier

<p>Dimensions in mm.</p>	<p>CASE: SMA/DO-214AC</p>	<p>Voltage 50 to 1000 V</p>	<p>Current 1.0 A</p>
<ul style="list-style-type: none"> Glass passivated junction High current capability The plastic material carries U/L 94 V-0 Low profile package Easy pick and place High temperature soldering 260 °C 10 sec 			
<p>MECHANICAL DATA</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 $T_L = 110\text{ °C}$	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 μ A				250 ns		500 ns	
t_{rr}	Maximum Reverse Recovery Time (0.5/1/0.25A)	150 ns							
C_j	Typical Junction Capacitance (1MHz; -4V)	8 pF							
$R_{th(j-l)}$ $R_{th(j-a)}$	Typical Thermal Resistance (5x5 mm ² x 130 μ Copper Area)	27 °C/W			75 °C/W				
$T_j - T_{stg}$	Operating Junction and Storage Temperature Range	-55 to + 150 °C							