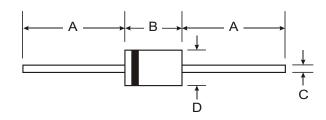


## FR106 / FR107

### 1.0A FAST RECOVERY RECTIFIER

# NOT RECOMMENDED FOR NEW DESIGNS, \_\_\_\_\_\_ PLEASE USE PR1006G - PR1007G

- Plastic Package: UL Flammability Classification Rating 94V-0
- Capable of Meeting the Environmental Tests in MIL-STD-750C
- High Reliability and Low Leakage
- Fast Switching for High Efficiency



### **Mechanical Data**

**Features** 

• Case: DO-41, Molded Plastic

 Terminals: Axial Lead, Solderable per MIL-STD-202, Method 208

Mounting Position: AnyPolarity: Cathode Band

Weight: 0.35 grams (approx.)

DO-41				
Dim	Min	Max		
Α	25.4	_		
В	4.1	5.2		
С	0.71	0.86		
D	2.0	2.7		
All Dimensions in mm				

### **Maximum Ratings and Electrical Characteristics**

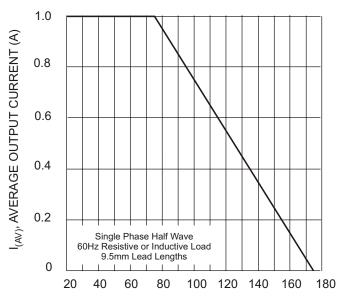
Rating at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60Hz, resistive or inductive load.

Characteristic	Symbol	FR106	FR107	Unit
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	800	1000	V
Maximum RMS Voltage	V <sub>RSM</sub>	560	700	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	800	1000	V
Maximum Average Forward Rectified Current 9.5mm Lead Lengths @ T <sub>A</sub> = 75°C	I <sub>(AV)</sub>	1.0		А
Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	30		А
Maximum Forward Voltage at 1.0A	V <sub>F</sub>	1	.3	V
	I <sub>R</sub>	5.0 100		μА
Typical Thermal Resistance (Note 1)	$R_{\theta JA}$	50		°C/W
Typical Junction Capacitance (Note 2)	CJ	15		pF
Maximum Reverse Recovery Time (Note 3)	T <sub>rr</sub>	250	500	ns
Storage and Operating Temperature	T <sub>J</sub> , T <sub>STG</sub>	-65 to +175		°C

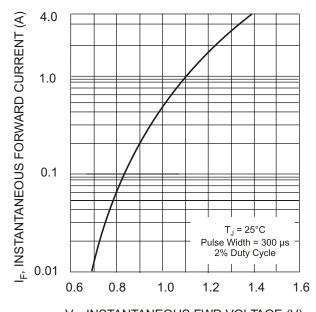
Notes: 1. Thermal Resistance from Junction to Ambient PC Board Mounting, 9.5mm Lead Length.

- 2. Measured at 1.0MHz and applied reverse voltage of 4.0 Volts.
- 3. Measured with I<sub>F</sub>= 0.5A, I<sub>R</sub>=1.0A, I<sub>RR</sub>=.25A

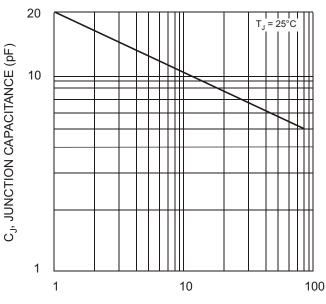




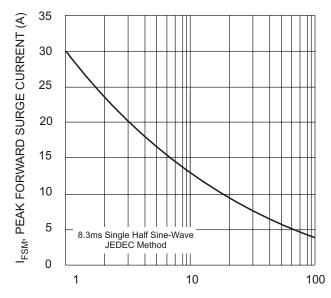
T<sub>A</sub>, AMBIENT TEMPERATURE (°C) Fig. 1, Forward Current Derating Curve



V<sub>F</sub>, INSTANTANEOUS FWD VOLTAGE (V) Fig. 2, Typical Forward Characteristics



 $V_R$ , REVERSE VOLTAGE (V) Fig. 3, Typical Junction Capacitance



NUMBER OF CYCLES AT 60Hz Fig. 4, Max Non-Repetitive Peak Forward Surge Current