

## R1500F - R3000F

### HIGH VOLTAGE RECTIFIER

#### **Features**

- High Voltage to 3000V with Low Leakage
- 1.5kV to 3kV V<sub>RRM</sub>
- Surge Rating of 30A
- Plastic Package UL Recognition Flammability Classification 94V-0

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### **Mechanical Data**

• Case: Molded Plastic

• Terminals: Plated Leads Solderable per

MIL-STD-202, Method 208

Polarity: Cathode Band

Approx. Weight: 0.35 grams

Mounting Position: Any

Marking: Type Number

DO-41 Plastic				
Dim	Min	Max		
Α	25.40	_		
В	4.06	5.21		
С	0.71	0.884		
D	2.00	2.72		
All Dimensions in mm				

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

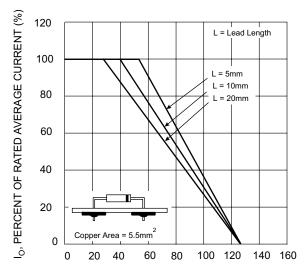
@ T<sub>A</sub> = 25°C unless otherwise specified

Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

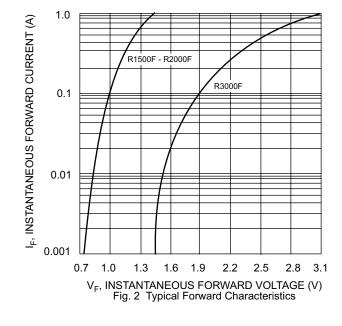
Characteristic	Symbol	R1500F	R2000F	R3000F	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V <sub>RRM</sub> V <sub>RWM</sub> V <sub>R</sub>	1500	2000	3000	V
RMS Reverse Voltage	V <sub>R(RMS)</sub>	1050	1400	2100	V
Average Rectified Output Current (Note 1) @ T <sub>L</sub> = 55°C	, lo	500		200	Α
Non-Repetitive Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>		30		А
Forward Voltage @ I <sub>F</sub> = 500m. @ I <sub>F</sub> = 200m.		2.0 —	3.0	<u> </u>	V
Peak Reverse Current at Rated DC Blocking Voltage	I <sub>RM</sub>	5.0		μA	
Typical Junction Capacitance (Note 2)	Cj	9.0 6.0		pF	
Typical Reverse Recovery Time (Note 3)	t <sub>rr</sub>	500		ns	
Operating and Storage Temperature Range	T <sub>j</sub> , T <sub>STG</sub>	-65 to +125			°C

Notes:

- 1. Valid provided that leads are kept at ambient temperature at a distance of 9.5mm from the case.
- 2. Measured at 1.0 MHz and applied reverse voltage of 4.0V DC.
- 3. Measured with  $I_F = 0.5A$ ,  $I_R = -1A$ ,  $I_{rr} = -0.25A$



T<sub>A</sub>, AMBIENT TEMPERATURE (°C)
Fig. 1 Current Derating for Various Lead Lengths



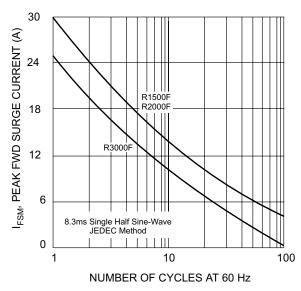


Fig. 3 Peak Fwd Surge Current vs # of Cycles @ 60 Hz

