

# R1500 - R3000 HIGH VOLTAGE RECTIFIER DIODES

VOLTAGE RANGE: 1500 - 3000V CURRENT: 0.2 - 0.5A

#### **Features**

- High voltage
- High current capability
- Low leakage current
- High surge capability
- Low cost

#### **Mechanical Data**

Case: D O - 4 1 Molded Plastic

Terminals: Plated Leads Solderable per

MIL-STD-202, Method 208

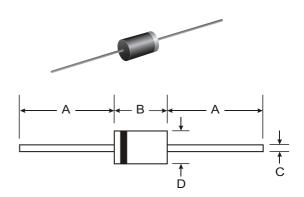
Polarity: Cathode Band

Weight: 0.34 grams (approx.)

Mounting Position: Any

Marking: Type Number





DO-41				
Dim	Min	Max		
Α	25.40	_		
В	4.06	5.21		
С	0.71	0.864		
D	2.00	2.72		
All Dimensions in mm				

### Maximum Ratings and Electrical Characteristics @ TA = 25°C unless otherwise specified

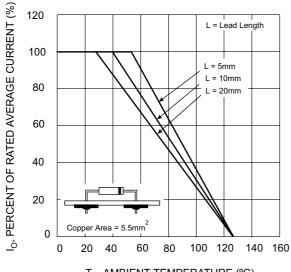
Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Characteristic	Symbol	R1500	R2000	R3000	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	Io	500		200	mA
Non-Repetitive Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	30		25	Α
Forward Voltage @ I <sub>F</sub> = 500mA @ I <sub>F</sub> = 200mA	V <sub>FM</sub>	2.0		3.0	V
Peak Reverse Leakage Current at Rated DC Blocking Voltage	I <sub>RM</sub>	5	.0		μΑ
Typical Junction Capacitance (Note 2)	Cj	8.0		7.0	pF
Typical Thermal Resistance Junction to Ambient	$R_{ heta JA}$	70		117	K/W
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 1.0MHz and applied reverse voltage of 4.0V DC.





 $\label{eq:TA} {\rm T_A, AMBIENT\ TEMPERATURE\ (^{\circ}C)}$  Fig. 1 Current Derating for Various Lead Lengths

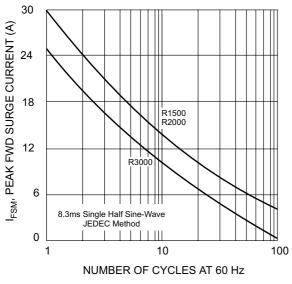
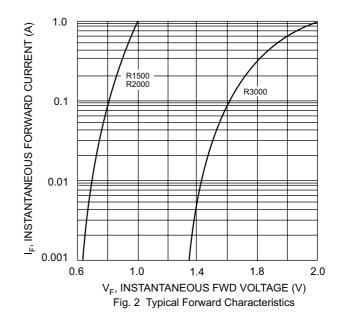
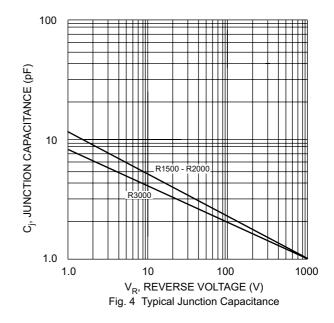


Fig. 3 Peak Fwd Surge Current vs # of Cycles @ 60 Hz





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