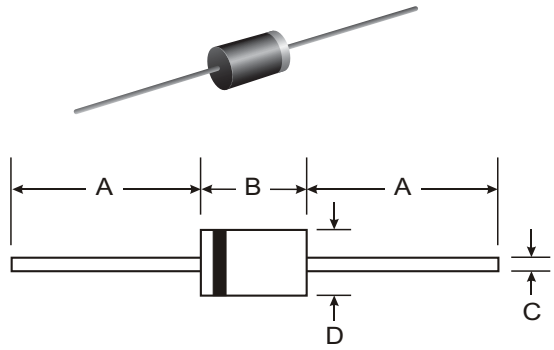
R1500 - R3000

HIGH VOLTAGE RECTIFIER DIODES

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



DO-41		
Dim	**Min**	**Max**
A	25.40	—
B	4.06	5.21
C	0.71	0.864
D	2.00	2.72
All Dimensions in mm		

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

RoHS COMPLIANT

Maximum Ratings and Electrical Characteristics

@ T_A = 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_{RRM} V_{RWM} V_R	1500	2000	3000	V
RMS Reverse Voltage	$V_{R(RMS)}$	1050	1400	2100	V
Average Rectified Output Current (Note 1) @ T_L = 55°C	I_O	500		200	mA
Non-Repetitive Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	30		25	A
Forward Voltage @ I_F = 500mA @ I_F = 200mA	V_{FM}	2.0 —		— 3.0	V
Peak Reverse Leakage Current at Rated DC Blocking Voltage	I_{RM}	5.0			μA
Typical Junction Capacitance (Note 2)	C_j	8.0		7.0	pF
Typical Thermal Resistance Junction to Ambient	$R_{\theta JA}$	70		117	K/W
Operating and Storage Temperature Range	T_j, T_{STG}	-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.

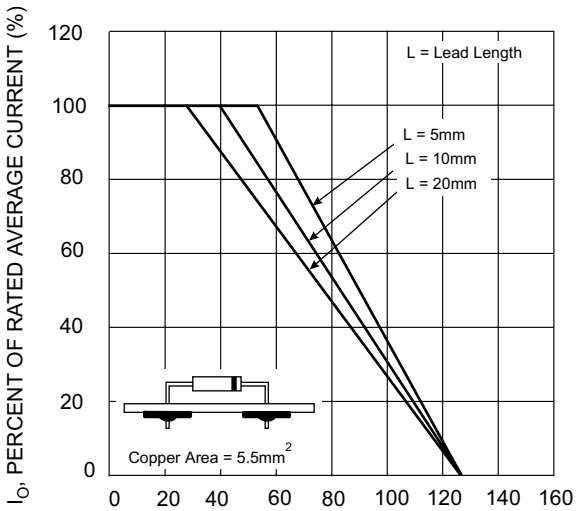


Fig. 1 Current Derating for Various Lead Lengths

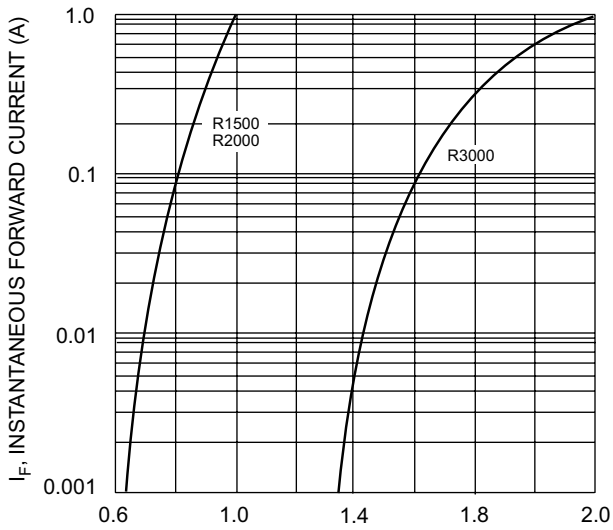


Fig. 2 Typical Forward Characteristics

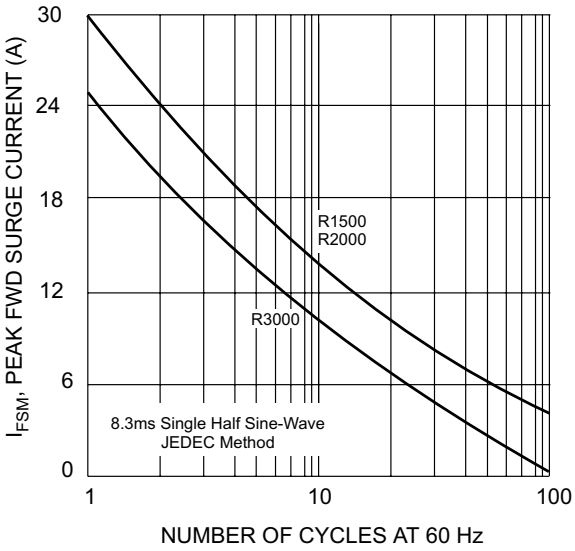


Fig. 3 Peak Fwd Surge Current vs # of Cycles @ 60 Hz

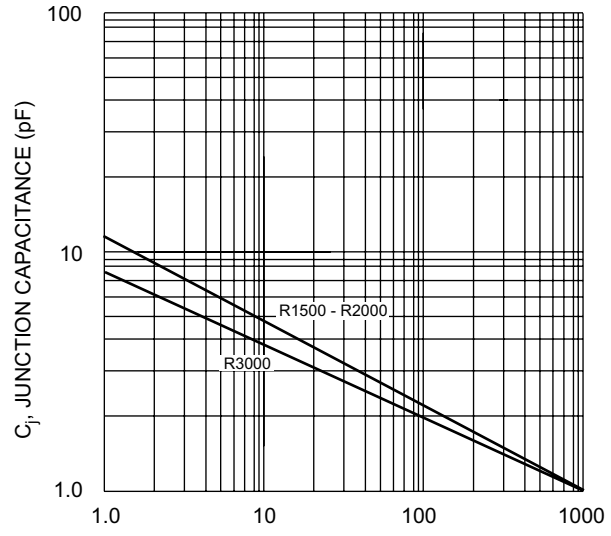


Fig. 4 Typical Junction Capacitance