R2500 THRU R5000

HIGH VOLTAGE SILICON RECTIFIER

Reverse Voltage - 2500 to 5000 Volts Forward Current - 0.2 Ampere

FEATURES

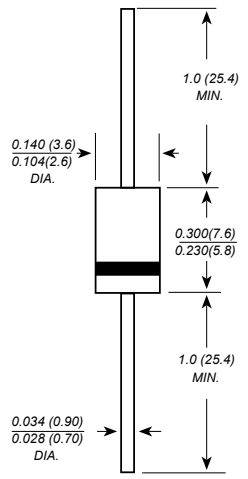
- Low cost
- Low leakage
- Low forward voltage drop
- High current capability

MECHANICAL DATA

Case: JEDEC DO-15 molded plastic body
Terminals: Plated axial leads, solderable per MIL-STD-750, Method 2026
Polarity: Color band denotes cathode end
Mounting Position: Any
Weight:0.014 ounce, 0.40 grams

RoHS Compliant

DO-15



Dimensions in inches and (millimeters)

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	R2500	R3000	R4000	R5000	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	2500	3000	4000	5000	V
RMS Reverse Voltage	$V_{R(RMS)}$	1750	2100	2800	3500	V
Average Rectified Output Current (Note 1) @ T_L= 50°C	I_O	200				mA
Non-Repetitive Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	30				A
Forward Voltage @ I_F = 200mA	V_{FM}	3.0	4.0	5.0		V
Peak Reverse Leakage Current at Rated DC Blocking Voltage	I_{RM}	5.0				μA
Typical Junction Capacitance (Note 2)	C_j	30				pF
Typical Thermal Resistance Junction to Ambient	$R_{\theta JA}$	117				K/W
Operating and Storage Temperature Range	T_j, T_{STG}	-65 to +150				°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.

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RATINGS AND CHARACTERISTIC CURVES

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

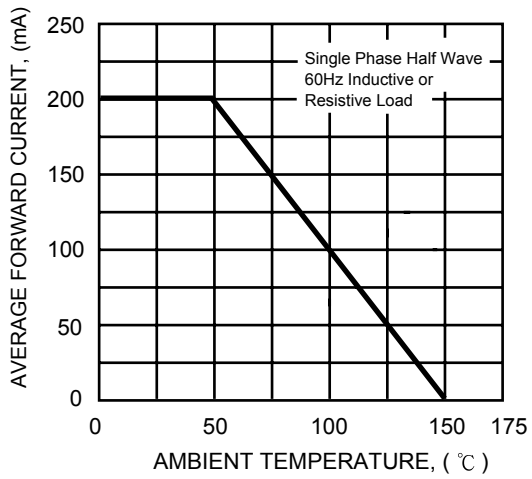

FIG. 2 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

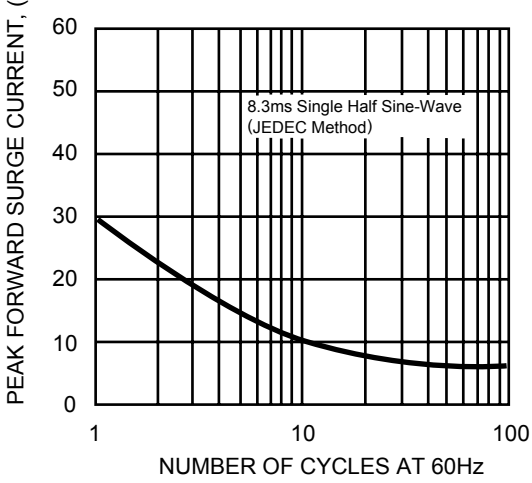

FIG. 3 - TYPICAL REVERSE CHARACTERISTICS