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R2000F

GLASS PASSIVATED JUNCTION HIGH VOLTAGE RECTIFIER

PRV : 2000 Volts
Io : 500 mA

FEATURES :

* Glass passivated chip
* High current capability
* High surge current capability
* High reliability
* Low reverse current
* Pb / RoHS Free

MECHANICAL DATA :

* Case : DO-41 Molded plastic
* Epoxy : UL94V-O rate flame retardant
* Lead : Axial lead solderable per MIL-STD-202, Method 208 guaranteed
* Polarity : Color band denotes cathode end
* Mounting position : Any
* Weight : 0.34 gram

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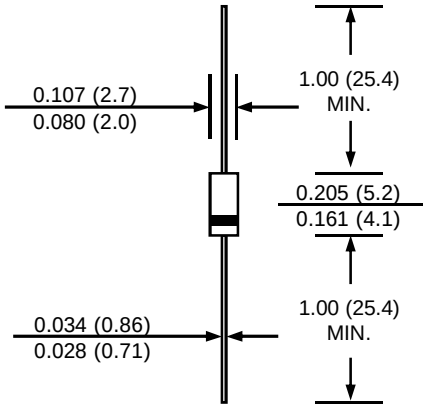


Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25 °C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

RATING	SYMBOL	VALUE	UNIT
Maximum Peak Repetitive Reverse Voltage	V_{RRM}	2000	V
Maximum RMS Voltage	V_{RMS}	1400	V
Maximum DC Blocking Voltage	V_{DC}	2000	V
Maximum Average Forward Current , Ta = 50 °C (Note 1)	$I_{F(AV)}$	500	mA
Maximum Peak Forward Surge Current, 8.3ms Single half sine wave Superimposed on rated load (JEDEC Method)	I_{FSM}	30	A
Maximum Peak Forward Voltage at I_F = 500 mA	V_F	3.0	V
Maximum DC Reverse Current at Rated DC Blocking Voltage	I_R	5.0	µA
Typical Junction Capacitance (Note 2)	Cj	9.0	pF
Typical Reverse Recovery Time (Note 3)	Trr	500	ns
Operating and Storage Temperature Range	T_J, T_{STG}	- 55 to + 150	°C

Notes :

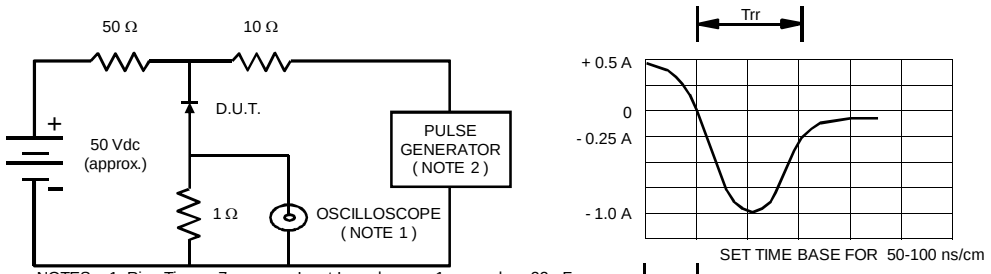
(1) Valid provided that lead are kept at ambient temperature at a distance of 9.5 mm from the case

(2) Measured at 1.0 MHz and applied reverse voltage of 4.0 V DC.

(3) Reverse Recovery Test Conditions : I_F = 0.5 A, I_R = 1A, Irr = 0.25 A.

RATING AND CHARACTERISTIC CURVES (R2000F)

FIG.1 - REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM



NOTES : 1. Rise Time = 7 ns max., Input Impedance = 1 megaohm, 22 pF.
2. Rise time = 10 ns max., Source Impedance = 50 ohms.
3. All Resistors = Non-inductive Types.

FIG.2 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

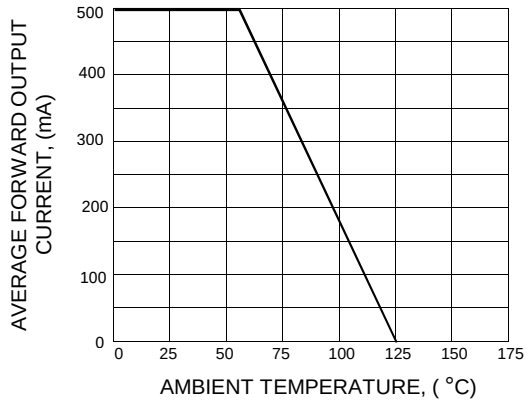


FIG.3 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

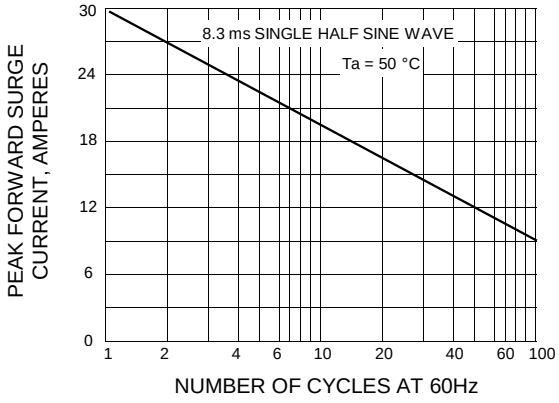


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

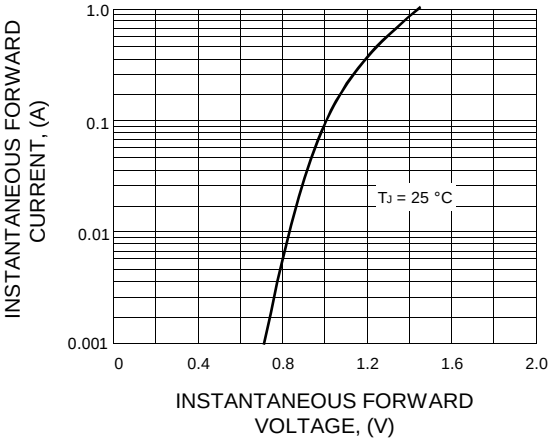


FIG.5 - TYPICAL REVERSE CHARACTERISTICS