

R2000F

GLASS PASSIVATED JUNCTION HIGH VOLTAGE RECTIFIER

PRV : 2000 Volts

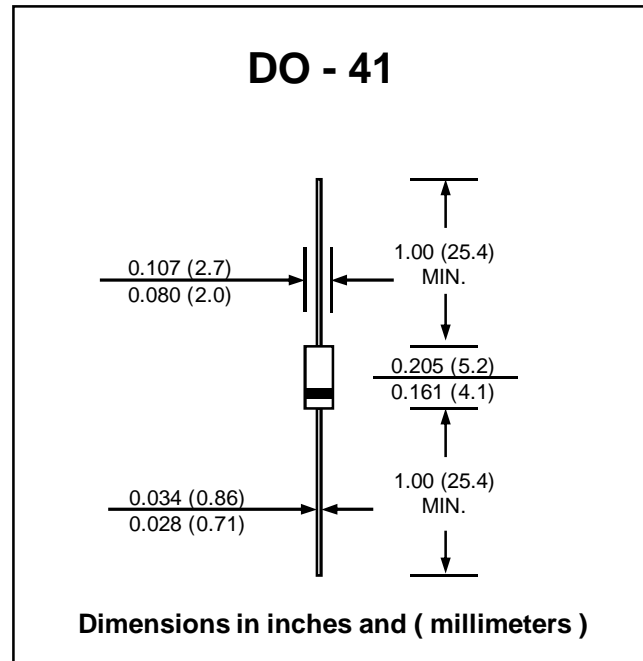
Io : 500 mA

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



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%.

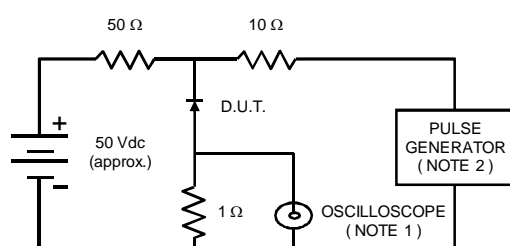
RATING	SYMBOL	VALUE	UNIT
Maximum Peak Repetitive Reverse Voltage	V_{RRM}	2000	V
Maximum RMS Voltage	V_{RMS}	1400	V
Maximum DC Blocking Voltage	V_{DC}	2000	V
Maximum Average Forward Current , $T_a = 50\text{ °C}$ (Note 1)	$I_{F(AV)}$	500	mA
Maximum Peak Forward Surge Current, 8.3ms Single half sine wave Superimposed on rated load (JEDEC Method)	I_{FSM}	30	A
Maximum Peak Forward Voltage at $I_F = 500\text{ mA}$	V_F	3.0	V
Maximum DC Reverse Current at Rated DC Blocking Voltage	I_R	5.0	μA
Typical Junction Capacitance (Note 2)	C_j	9.0	pF
Typical Reverse Recovery Time (Note 3)	T_{rr}	500	ns
Operating and Storage Temperature Range	T_J, T_{STG}	- 65 to + 125	°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 : $I_F = 0.5\text{ A}$, $I_R = 1\text{ A}$, $I_{rr} = 0.25\text{ A}$.

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.

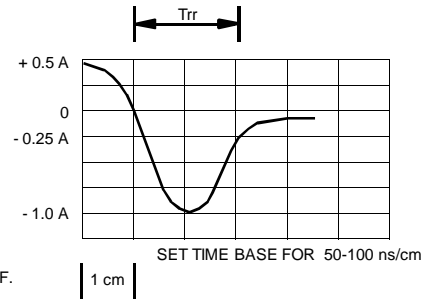


FIG.2 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

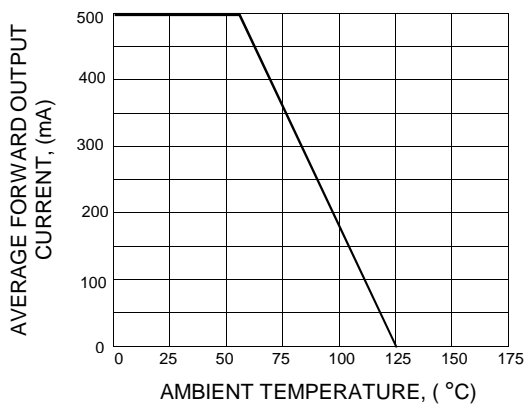


FIG.3 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

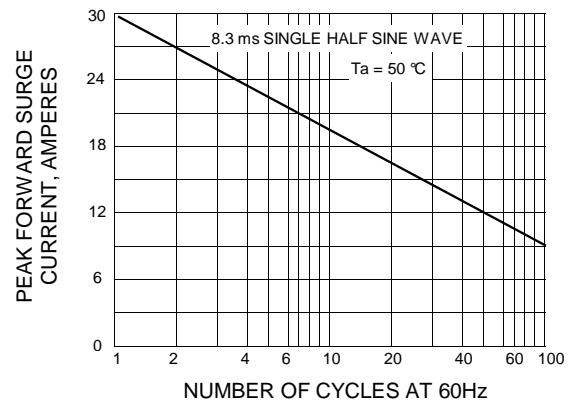


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

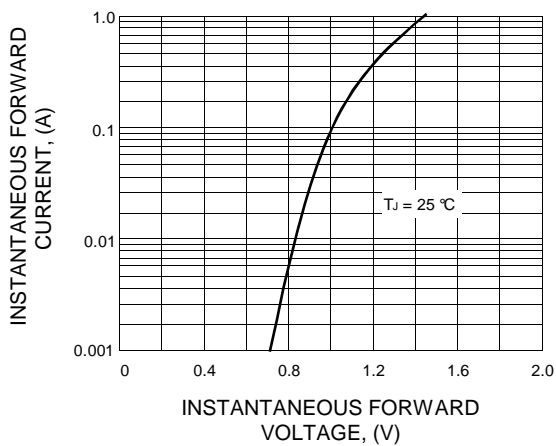


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

