

BY8006

FAST RECOVERY HIGH VOLTAGE RECTIFIER DIODE

PRV : 8000 Volts

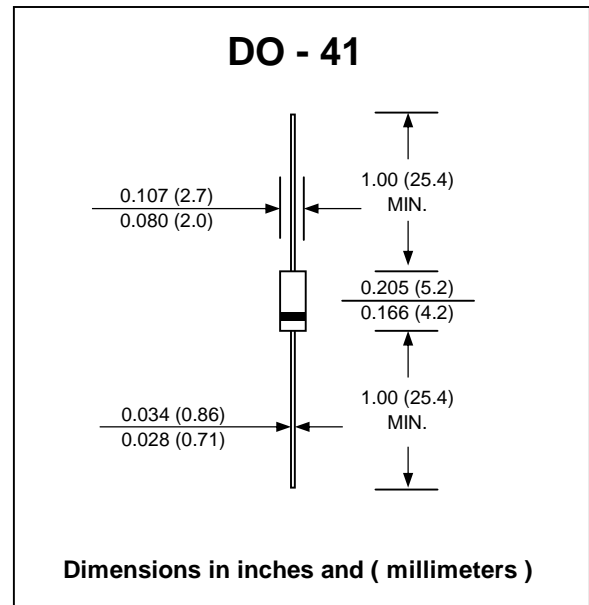
I_{F(AV)} : 10 mA

FEATURES :

- * High current capability
- * High surge current capability
- * High reliability
- * Low reverse current
- * Low forward voltage drop
- * **Pb / RoHS Free**

MECHANICAL DATA :

- * Case : DO-41 Molded plastic
- * Epoxy : UL94V-0 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%.

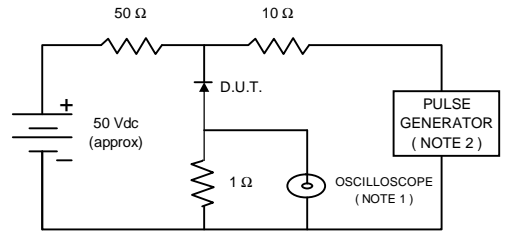
RATING	SYMBOL	VALUE	UNIT
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	8000	V
Maximum Working Reverse Voltage	V _{RW}	6000	V
Maximum Average Forward Current (See Fig. 2)	I _{F(AV)}	10	mA
Maximum Repetitive Peak Forward Current (Note 1)	I _{FRM}	500	mA
Maximum Forward Voltage at I _F = 100 mA.	V _F	25	V
Maximum Reverse Current at V _R = V _{RWmax} , T _j = 120 °C	I _R	3.0	μA
Maximum Reverse Recovery Time (Note 2)	T _{rr}	100	ns
Junction Temperature Range	T _J	- 40 to + 150	°C
Storage Temperature Range	T _{STG}	- 40 to + 150	°C

Notes :

- (1) Withstands peak currents during flash-over in a picture tube.
- (2) Reverse Recovery Test Conditions : I_F = 0.5 A, I_R = 1.0 A, I_{rr} = 0.25 A.

RATING AND CHARACTERISTIC CURVES (BY8006)

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.

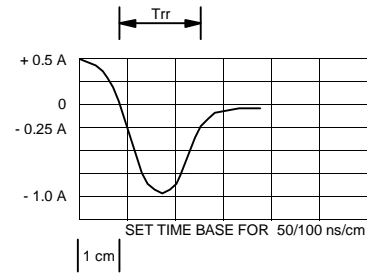


FIG.2 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

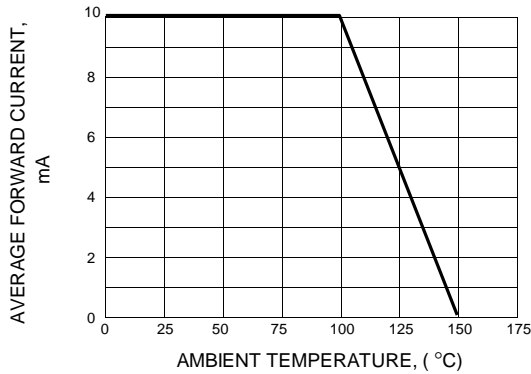


FIG.3 - MAXIMUM PEAK FORWARD CURRENT

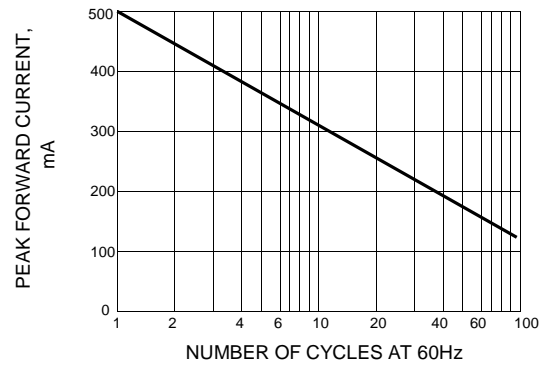


FIG.4 - MAXIMUM FORWARD CHARACTERISTICS

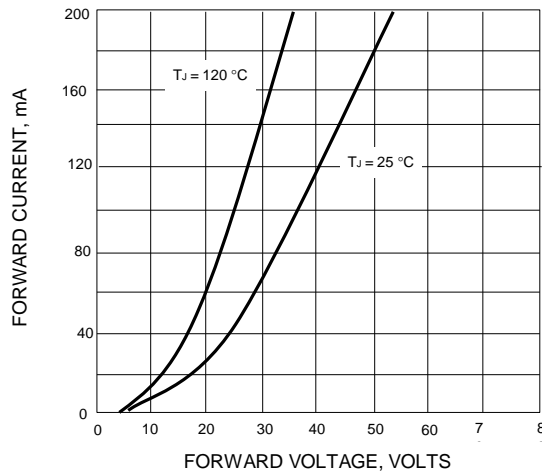


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

