

HSF160

PRV : 6000 Volts

Io : 0.5 Ampere

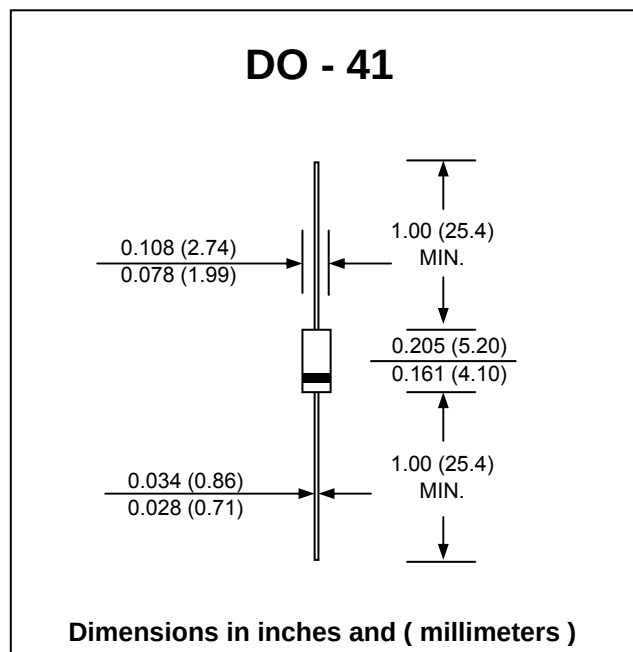
FEATURES :

- * Glass pasivated junction chip
- * High surge current capability
- * High voltage capability
- * High reliability
- * Low reverse current
- * **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

GLASS PASSIVATED HIGH VOLTAGE SUPERFAST RECOVERY RECTIFIER



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%.

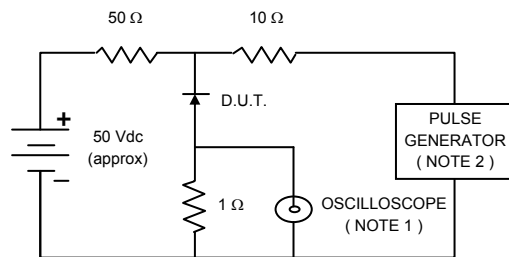
RATING	SYMBOL	VALUE	UNIT
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	6000	V
Maximum RMS Voltage	V_{RMS}	4200	V
Maximum DC Blocking Voltage	V_{DC}	6000	V
Maximum Average Forward Current at $T_L = 50\text{ }^{\circ}\text{C}$	$I_{F(AV)}$	500	mA
Maximum Peak Forward Surge Current , 8.3ms Single half sine wave Superimposed on rated load (JEDEC Method)	I_{FSM}	20	A
Maximum Peak Forward Voltage at $I_F = 500\text{ mA}$	V_F	20	V
Maximum DC Reverse Current $T_a = 25\text{ }^{\circ}\text{C}$	I_R	10	μA
at Rated DC Blocking Voltage $T_a = 100\text{ }^{\circ}\text{C}$	$I_{R(H)}$	200	μA
Maximum Reverse Recovery Time (Note 1)	T_{rr}	35	ns
Junction Temperature Range	T_J	- 40 to + 150	$^{\circ}\text{C}$
Storage Temperature Range	T_{STG}	- 40 to + 150	$^{\circ}\text{C}$

Note :

(1) Reverse Recovery Test Conditions : $I_F = 0.5\text{ A}$, $I_R = 1.0\text{ A}$, $I_{rr} = 0.25\text{ A}$.

RATING AND CHARACTERISTIC CURVES (HSF160)

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.

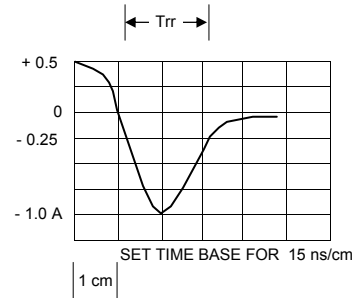


FIG.2 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

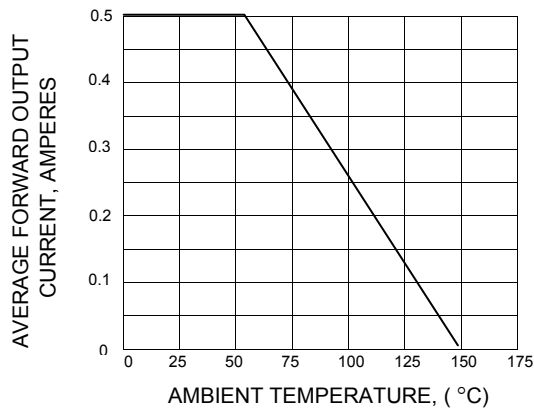


FIG.3 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

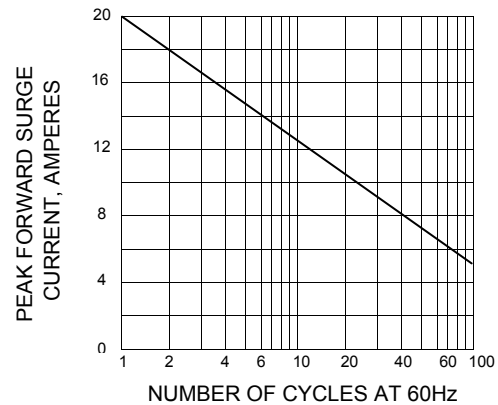


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

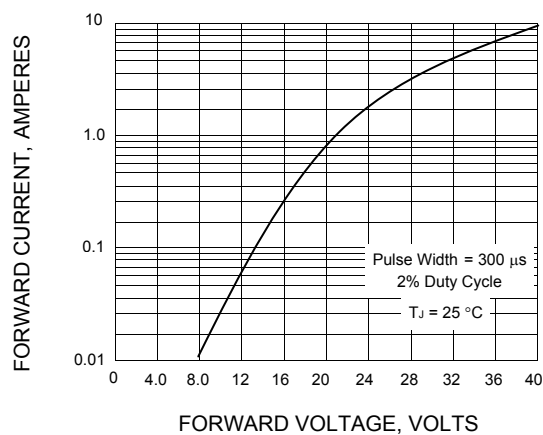


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

