

SHVR2000

HIGH VOLTAGE SUPER FAST RECOVERY DIODE

PRV : 20,000 V

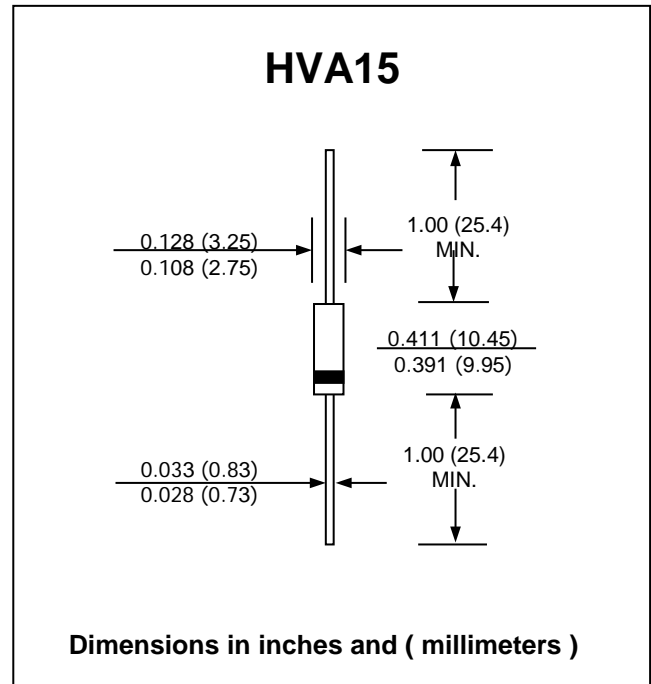
Io : 20 mA

FEATURES :

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

MECHANICAL DATA :

- * Case : HVA15 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



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25 °C ambient temperature unless otherwise specified.

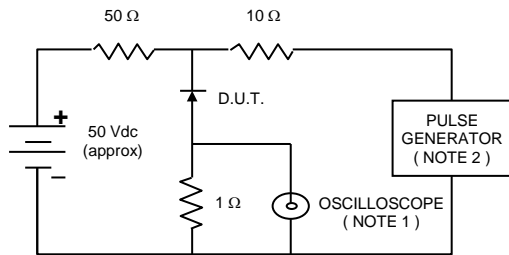
RATING	SYMBOL	VALUE	UNIT
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	20000	V
Maximum Working Reverse Voltage	V_{RWM}	20000	V
Maximum Average Forward Current $T_a = 40\text{ }^\circ\text{C}$	$I_{F(AV)}$	20	mA
Peak Forward Surge Current 8.3ms Single half sine wave Superimposed on rated load (JEDEC Method)	I_{FSM}	3.0	A
Maximum Peak Forward Voltage at $I_F = 10\text{ mA}$	V_F	20	V
Maximum Peak Reverse Current	I_R	2.0	μA
Maximum Reverse Recovery Time (Note 1)	T_{rr}	100	ns
Junction Temperature Range	T_J	- 55 to + 175	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	- 55 to + 175	$^\circ\text{C}$

Notes :

(1) Reverse Recovery Test Conditions : $I_F = 20\text{ mA}$, $I_R = 40\text{ mA}$, $I_{rr} = 10\text{ mA}$.

RATING AND CHARACTERISTIC CURVES (SHVR2000)

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.

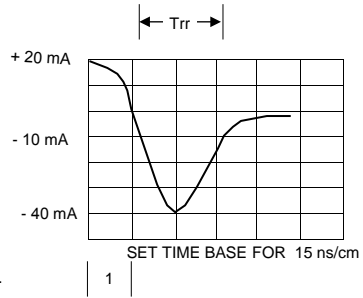


FIG.2 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

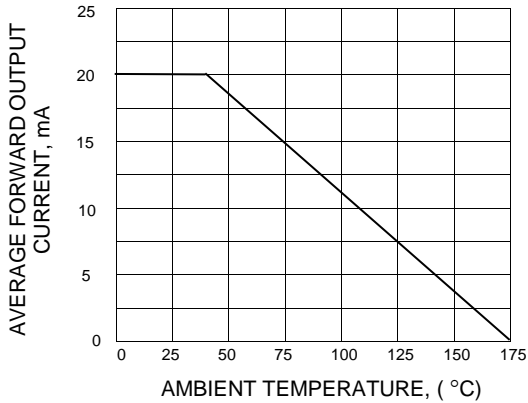


FIG.3 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

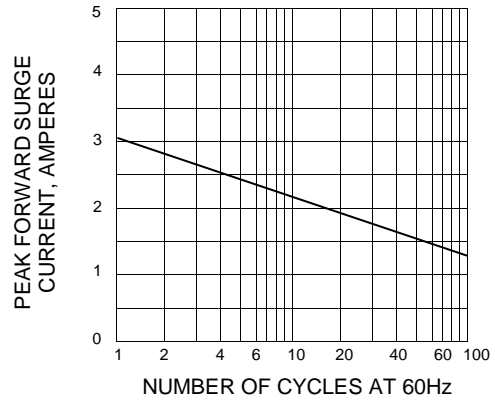


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

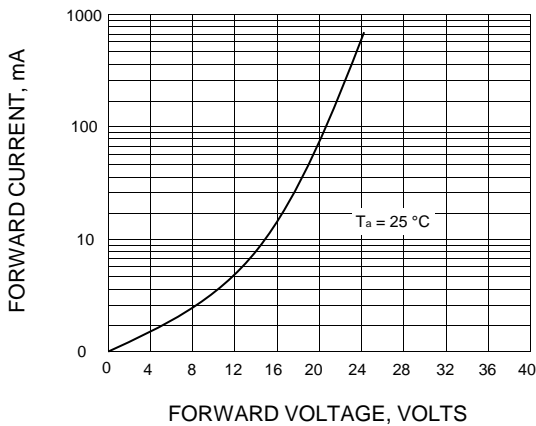


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

