

BYV95A - BYV96E

AVALANCHE FAST RECOVERY RECTIFIER DIODES

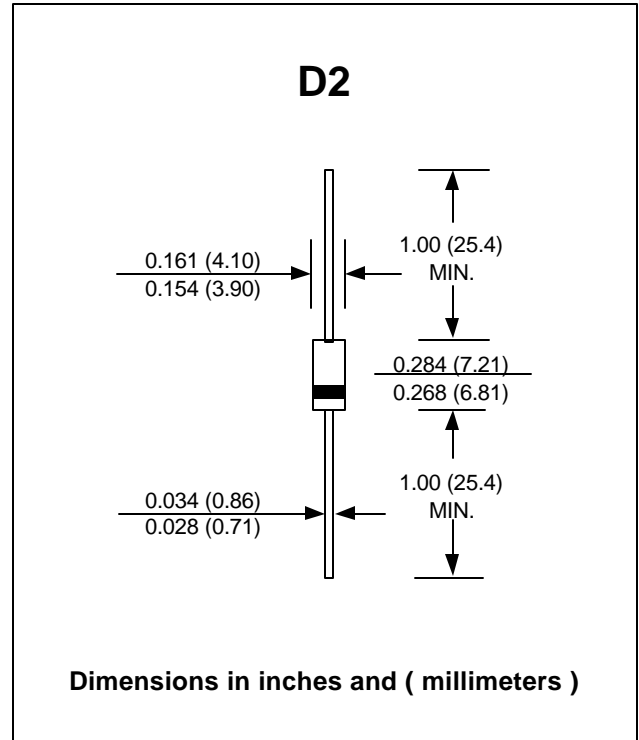
PRV : 200 - 1000 Volts
Io : 1.5 Amperes

FEATURES :

- * High current capability
- * High surge current capability
- * High reliability
- * Low reverse current
- * Low forward voltage drop
- * Fast switching for high efficiency

MECHANICAL DATA :

- * Case : D2 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 : 0.465 gram



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25 °C ambient temperature unless otherwise specified.
 Single phase, half wave, 50 Hz, resistive or inductive load.
 For capacitive load, derate current by 20%.

RATING	SYMBOL	BYV95A	BYV95B	BYV95C	BYV96D	BYV96E	UNITS
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	200	400	600	800	1000	Volts
Maximum RMS voltage	V _{RMS}	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	V _{DC}	200	400	600	800	1000	Volts
Min. Avalanche Breakdown Voltage @ 100 μA	V _{BR(min.)}	300	500	700	900	1100	Volts
Maximum Average Forward Rectified Current Lead Length 10 mm. ; T _{tp} = 65 °C	I _{F(AV)}	1.5					Amps.
Peak Forward Surge Current single half sine wave superimposed on rated load	I _{FSM}	35					Amps.
Maximum Forward Voltage at I _F = 3.0 Amps.	V _F	1.6					Volts
Maximum DC Reverse Current T _J = 25 °C at Rated DC Blocking Voltage T _J = 165 °C	I _R	5.0					μA
Maximum Reverse Recovery Time (Note 1)	T _{rr}	150			200		ns
Typical Thermal Resistance (Note 2)	R _{θJA}	50					°C/W
Junction Temperature Range	T _J	175					°C
Storage Temperature Range	T _{STG}	- 65 to + 175					°C

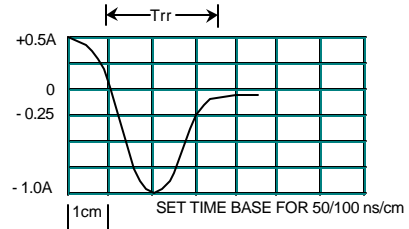
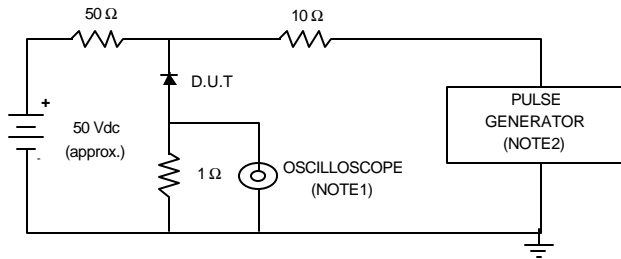
Notes :

- (1) Measured with I_F = 0.5A, R = 1.0A, I_{rr} = 0.25A
- (2) Thermal resistance from Junction to Ambient at 0.375" (9.5mm) Lead Lengths. P.C. Board Mounted.

UPDATE : AUGUST 3, 1998

RATING AND CHARACTERISTIC CURVES (BYV95A - BYV96E)

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



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

FIG.2 - FORWARD CURRENT DERATING CURVE

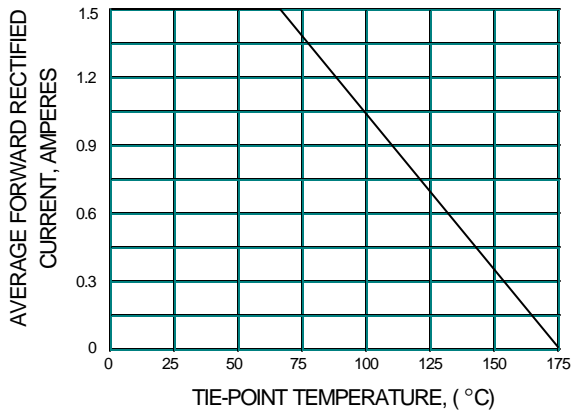


FIG.3 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

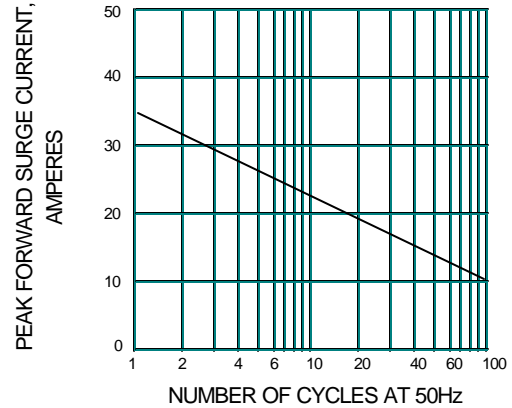


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

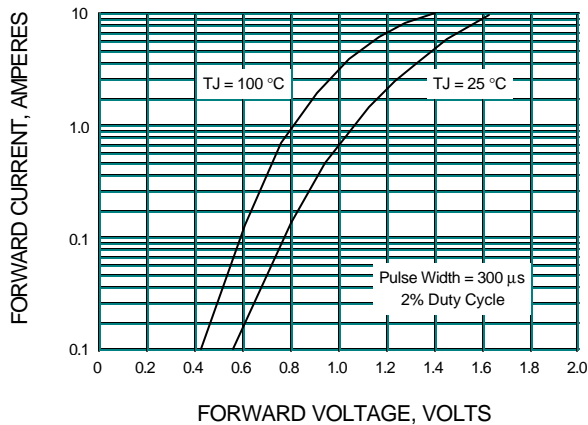


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

