HITANO ENTERPRISE CORP.

BY296-BY299

TECHNICAL SPECIFICATIONS OF FAST RECTIFIER
VOLTAGE RANGE – 100 to 800 Volts CURRENT – 2.0 Amperes

FEATURES

*Fast switching

*Low leakage

*Low forward voltage drop

*High current capability

*High current surge

*High reliability

MECHANICAL DATA

*Case : Molded plastic

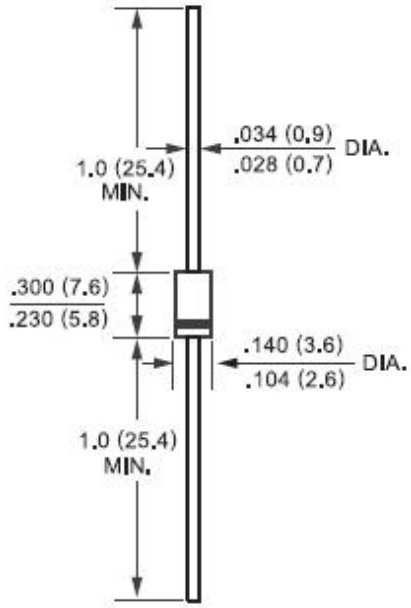
*Epoxy : UL 94V-0 rate flame retardant

*Lead : MIL-STD-202E , Method 208 guaranteed

*Mounting position : Any

*Weight : 0.38 gram

DO-15



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25℃ ambient temperature unless otherwise specified.

Single phase, half wave, 60 Hz , resistive or inductive load.

For capacitive load , derate current by 20%.

	SYMBOL	BY296	BY297	BY298	BY299	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	100	200	400	800	Valts
Maximum RMS Voltage	V_{RMS}	70	140	280	560	Valts
Maximum DC Blocking Voltage	V_{DC}	100	200	400	800	Valts
Maximum Average Forward Rectified Current At T_A =75℃	I_O	2.0				Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	70				Amps
Maximum instantaneous Forward Voltage at 2.0A DC	V_F	1.3				Valts
Maximum DC Reverse Current at Rated DC Blocking Voltage T_A =25℃	I_R	5.0				uAmps
Maximum Full Load Reverse Current Full Cycle Average, .375*(9.5mm) lead length at TL=55℃		100				uAmps
Maximum Reverse Recovery Time (Note 1)	trr	150		500		nSec
Typical Junction Capacitance (Note 2)	C_J	40				pF
Operating and Storage Temperature Range	T_J, T_{STG}	-60 to +150				℃

NOTES: 1. Test Conditions : I_F = 0.5A ,I_R = 1.0A ,I_{RR} = 0.25A

2. Measured at 1MHz and applied reverse voltage of 4.0 volts.

RATING AND CHARACTERISTIC CURVES (BY296 THRU BY299)

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

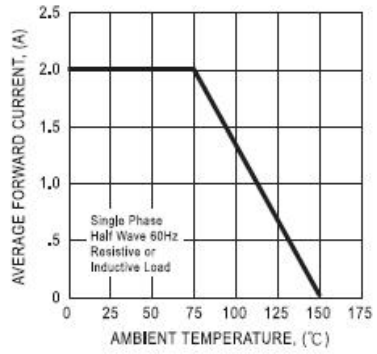


FIG. 2 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

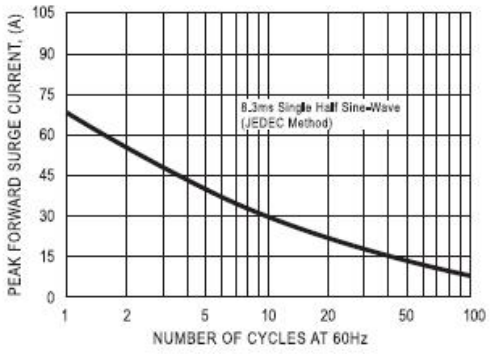


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

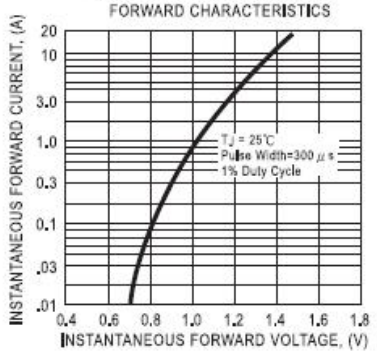


FIG. 4 - TYPICAL JUNCTION CAPACITANCE

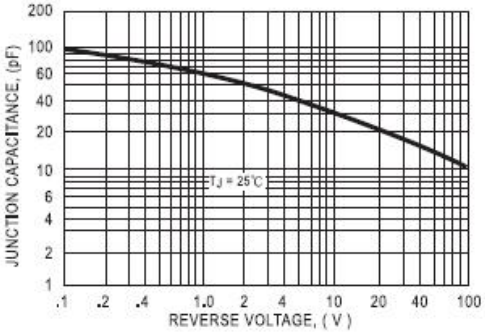
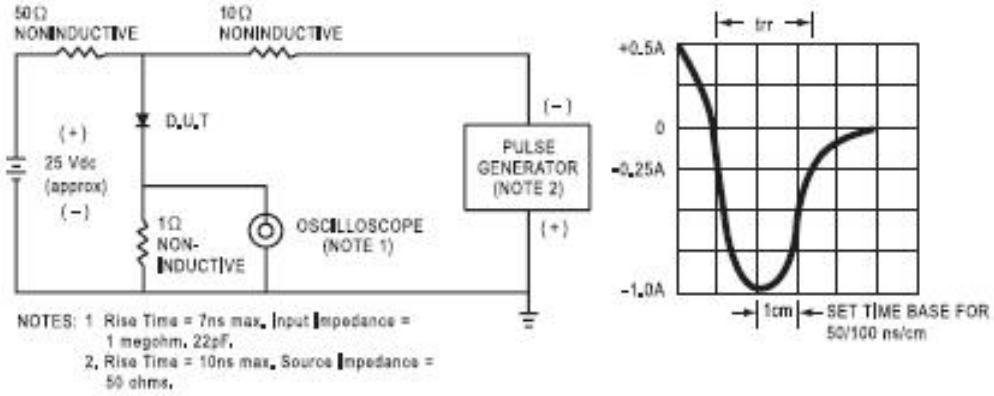


FIG. 5 - TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



NOTES: 1. Rise Time = 7ns max. Input Impedance = 1 megohm, 22pF.
2. Rise Time = 10ns max. Source Impedance = 50 ohms.