HITANO ENTERPRISE CORP.

BY251 THRU BY255

TECHNICAL SPECIFICATIONS OF SILICON RECTIFIER

VOLTAGE RANGE - 200 to 1300 Volts CURRENT - 3.0 Amperes

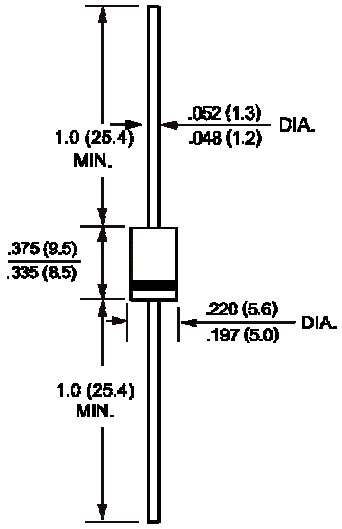
FEATURES

* Low cost
* Low leakage
* Low forward voltage drop
* High current capability

MECHANICAL DATA

* Case: Molded plastic
* Epoxy: UL 94V-0 rate flame retardant
* Lead: MIL-STD-202E, Method 208 guaranteed
* Polarity: Color band denotes cathode end
* Mounting position: Any
* Weight: 1.18 grams

DO-27



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings 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%.

		SYMBOL	BY251	BY252	BY253	BY254	BY255	UNITS
Maximum Recurrent Peak Reverse Voltage		V_{RRM}	200	400	600	800	1300	Volts
Maximum RMS Voltage		V_{RMS}	140	280	420	560	910	Volts
Maximum DC Blocking Voltage		V_{DC}	200	400	600	800	1300	Volts
Maximum Average Forward Rectified Current .375*(9.5mm) lead length at T_L = 105°C		I_O	3.0					Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)		I_{FSM}	200					Amps
Maximum Instantaneous Forward Voltage at 3.0A DC		V_F	1.1					Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage	@T_A = 25°C	I_R	5.0					uAmps
	@T_A = 100°C		500					
Maximum Full Load Reverse Current Average, Full Cycle .375*(9.5mm) lead length at T_L = 75°C			30					uAmps
Typical Junction Capacitance (Note)		C_J	40					pF
Typical Thermal Resistance		$R_{\theta JA}$	30					°C/W
Operating and Storage Temperature Range		T_J, T_{STG}	-65 to + 175					°C

NOTES : Measured at 1 MHz and applied reverse voltage of 4.0 volts

RATING AND CHARACTERISTIC CURVES (BY251 THRU BY255)

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

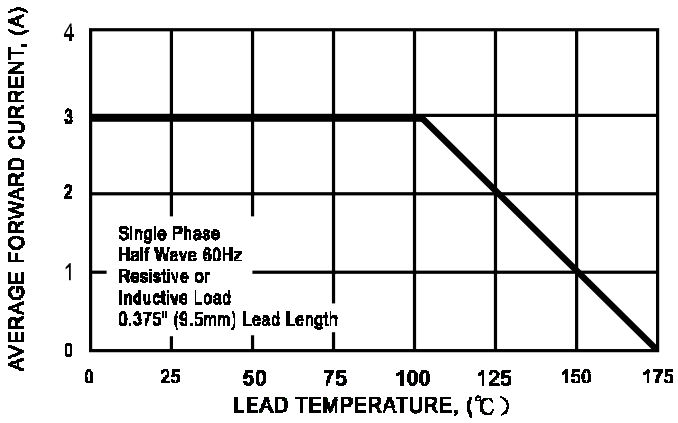


FIG. 2 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

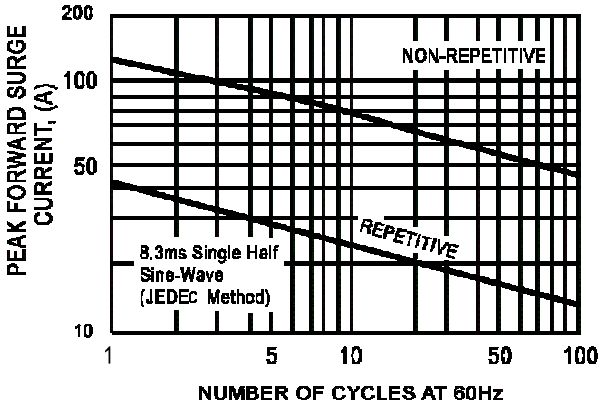


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD VOLTAGE, (V)

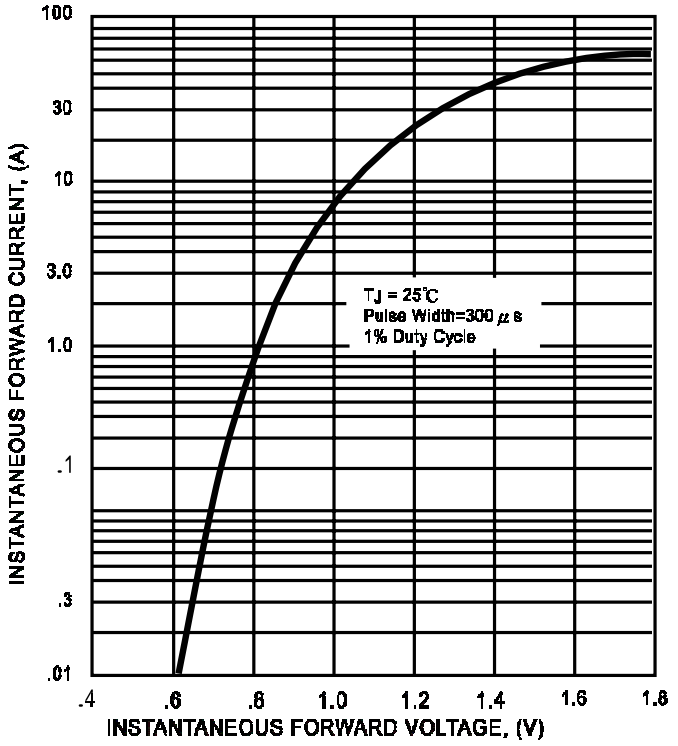


FIG. 4 - TYPICAL JUNCTION CAPACITANCE

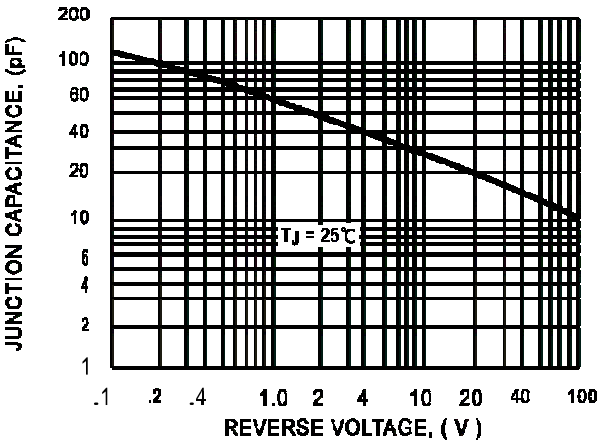


FIG. 5 - TYPICAL REVERSE CHARACTERISTICS