



DC COMPONENTS CO., LTD.

RECTIFIER SPECIALISTS

BY251

THRU

BY255

TECHNICAL SPECIFICATIONS OF SILICON RECTIFIER

VOLTAGE RANGE - 200 to 1300 Volts CURRENT - 3.0 Amperes

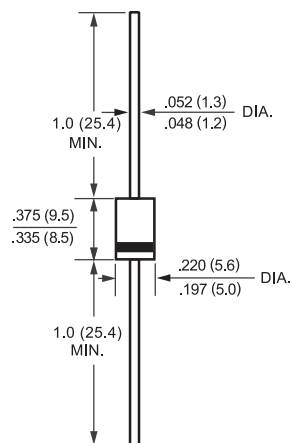
FEATURES

- * 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	@ T _A = 25°C	I _R	5.0					uAmps
at Rated DC Blocking Voltage	@ 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 _{qJA}	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

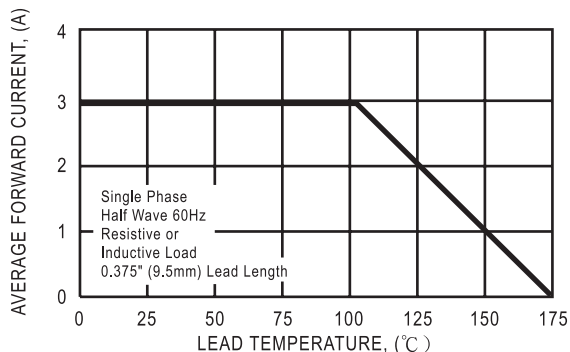


FIG. 2 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

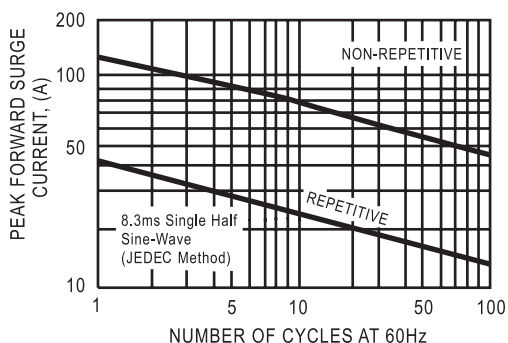


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD VOLTAGE, (V)

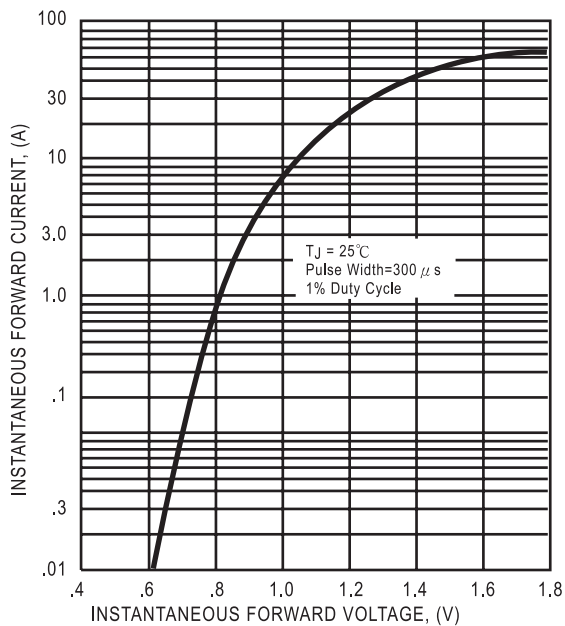


FIG. 4 - TYPICAL JUNCTION CAPACITANCE

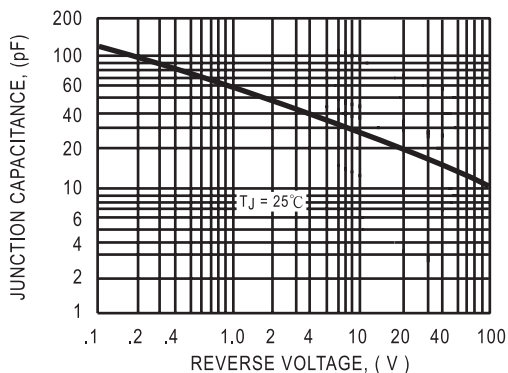
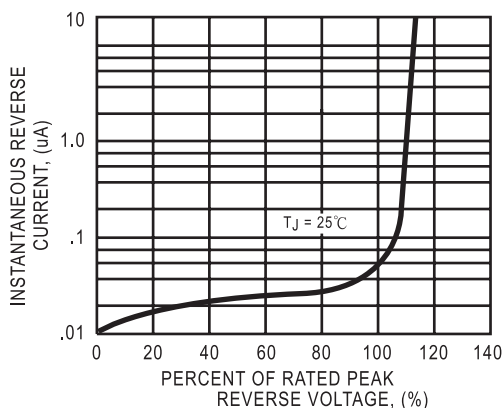


FIG. 5 - TYPICAL REVERSE CHARACTERISTICS



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