



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

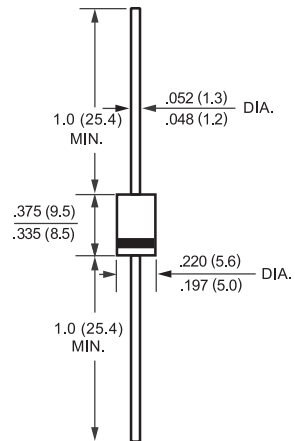
- * Case: Molded plastic
- * Epoxy: UL 94V-0 rate flame retardant
- * Lead: MIL-STD-202E, Method 208 guaranteed
- * Polarity: Color band denotes cathode end
- * Mounting position: Any
- * Weight: 1.18 grams

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%.



DO-27



Dimensions in inches and (millimeters)

	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	I _R	@ T _A = 25°C					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 _{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

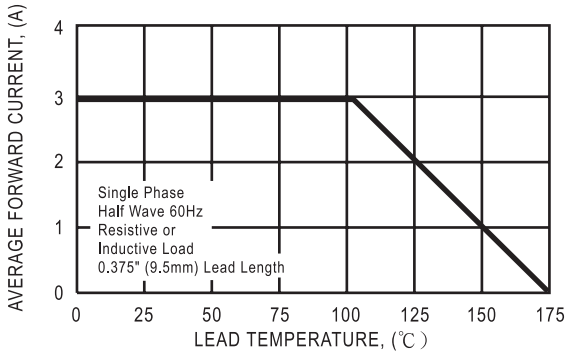


FIG. 2 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

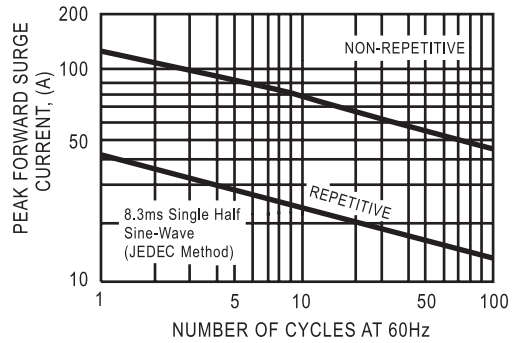


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD VOLTAGE, (V)

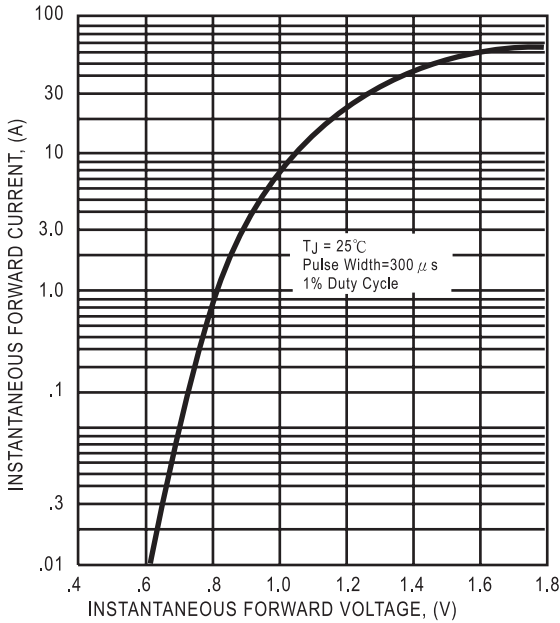


FIG. 4 - TYPICAL JUNCTION CAPACITANCE

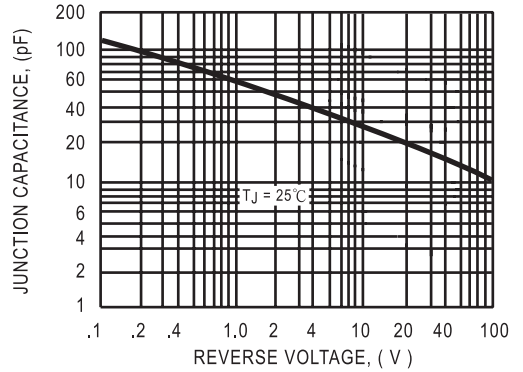
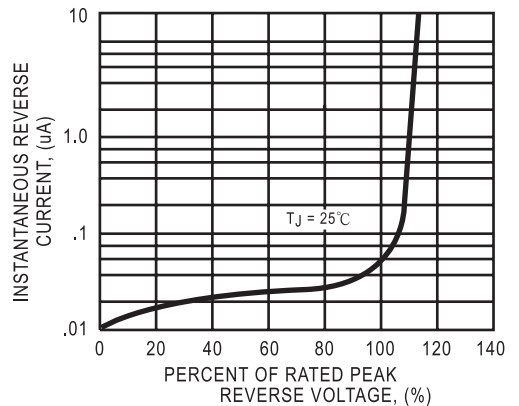


FIG. 5 - TYPICAL REVERSE CHARACTERISTICS



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