

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

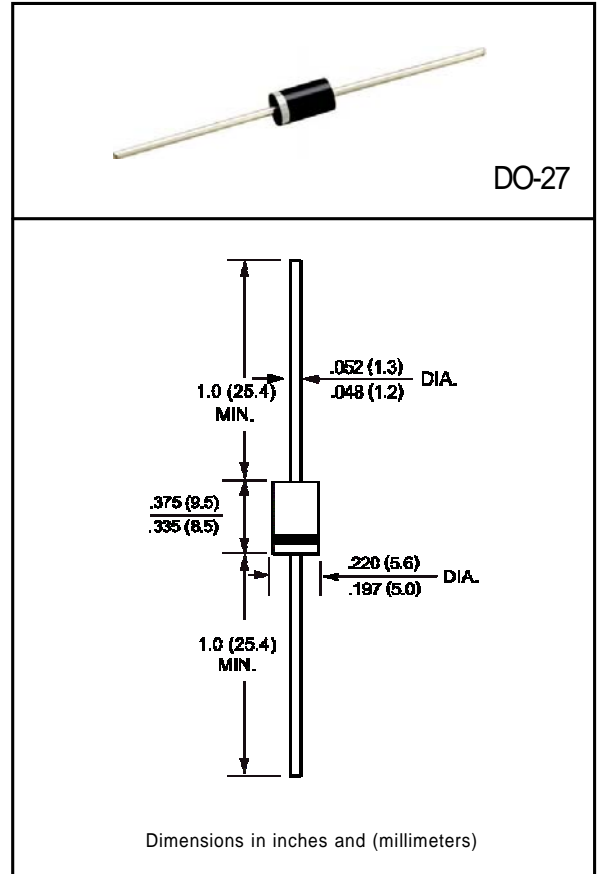
- * Case: Molded plastic
- * Epoxy: UL 94V-0 rate flame retardant
- * Lead: MIL-STD-202E, Method 208 guaranteed
- * Polarity: Color band denotes cathode end
- * Mounting position: Any
- * Weight: 1.18 grams

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%.



	SYMBOL	BY251	BY252	BY253	BY254	BY255	UNITS	
Maximum Recurrent Peak Reverse Voltage	VRRM	200	400	600	800	1300	Volts	
Maximum RMS Voltage	VRMS	140	280	420	560	910	Volts	
Maximum DC Blocking Voltage	Vbc	200	400	600	800	1300	Volts	
Maximum Average Forward Rectified Current .375*(9.5mm) lead length at T L = 105°C	Io	3.0					Amps	
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)	IFSM	200					Amps	
Maximum Instantaneous Forward Voltage at 3.0A DC	VF	1.1					Volts	
Maximum DC Reverse Current at Rated DC Blocking Voltage	IR	@TA = 25°C					5.0	uAmps
		@TA = 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)	CJ	40					pF	
Typical Thermal Resistance	RθJA	30					°C/W	
Operating and Storage Temperature Range	TJ, TSTG	-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

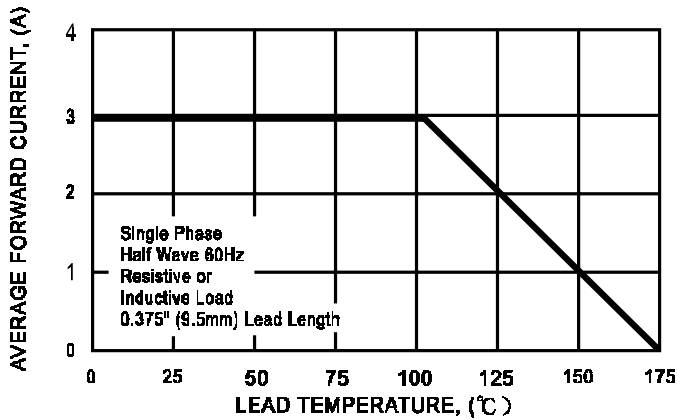


FIG. 2 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

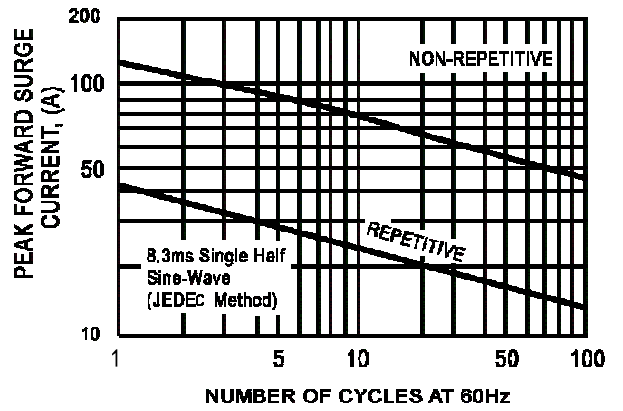


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD VOLTAGE, (V)

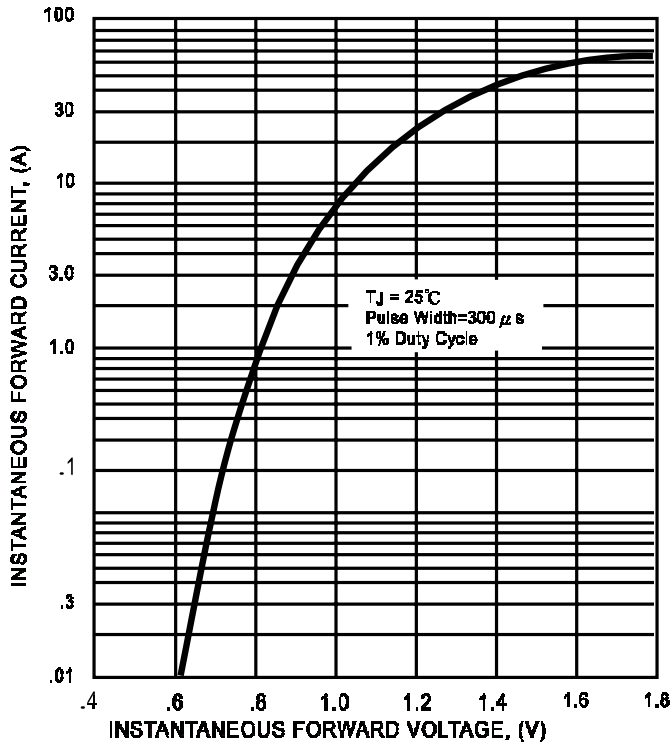


FIG. 4 - TYPICAL JUNCTION CAPACITANCE

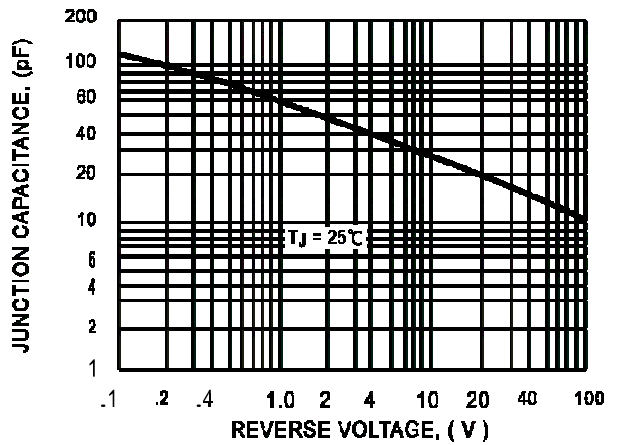


FIG. 5 - TYPICAL REVERSE CHARACTERISTICS

