



## SOFT RECOVERY FAST SWITCHING RECTIFIER

**BY500-100 THRU BY500-800**

**VOLTAGE RANGE  
CURRENT**

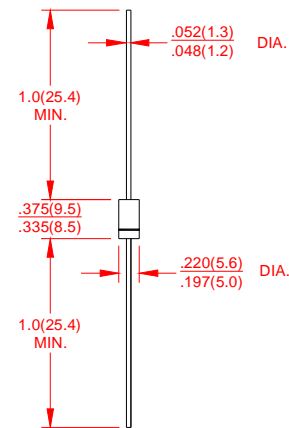
**100 to 800 Volts  
5.0Ampere**

### FEATURES

- Low coat construction
- Fast switching for high efficiency.
- Low reverse leakage
- High forward surge current capability
- High temperature soldering guaranteed:  
260°C/10 secods/.375”(9.5mm)lead length at 5 lbs(2.3kg) tension

### MECHANICAL DATA

- Case: Transfer molded plastic
- Epoxy: UL94V-O rate flame retardant
- Polarity: Color band denotes cathode end
- Lead: Plated axial lead, solderable per MIL-STD-202E method 208C
- Mounting position: Any
- Weight: 0.042ounce, 1.19 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, 60Hz, resistive or inductive load
- For capacitive load derate current by 20%

	SYMBOLS	BY500 -100	BY500 -200	BY500 -400	BY500 -600	BY500 -800	UNITS
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	100	200	400	600	800	Volts
Maximum RMS Voltage	$V_{RMS}$	70	140	260	420	560	Volts
Maximum DC Blocking Voltage	$V_{DC}$	100	200	400	600	800	Volts
Maximum Average Forward Rectified Current 0.375”(9.5mm) lead length at $T_A=55^\circ\text{C}$	$I_{(AV)}$	5.0					Amp
Peak Forward Surge Current 8.3mS single half sine wave superimposed on rated load (JEDEC method)	$I_{FSM}$	200					Amps
Maximum Instantaneous Forward Voltage @ 5.0A	$V_F$	1.35					Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage	$I_R$	$T_A = 25^\circ\text{C}$					$\mu\text{A}$
		$T_A = 100^\circ\text{C}$					
Maximum Reverse Recovery Time (NOTE2) $T_j=25^\circ\text{C}$	$t_{rr}$	200					ns
Typical Thermal Resistance (Note 1)	$R_{\theta JA}$	10					$^\circ\text{C}/\text{W}$
Operating Junction Temperature Range	$T_J$	(-55 to +150)					$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	(-55 to +150)					$^\circ\text{C}$

#### Notes:

1. Thermal Resistance from junction to Ambient at .375”(9.5mm)lead length, P.C.board mounted,with 1.1”× 1.1”(30×30mm)copper heatsink.
2. Reverse Recovery Test Conditions:If=0.5mA,Ir=1.0mA,Irr=0.25A



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## RATING AND CHARACTERISTIC CURVES BY500-100 THRU BY500-800

