BY500-100 - BY500-800

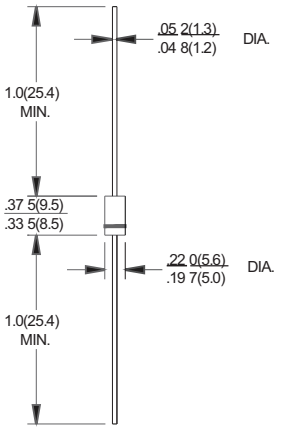
Voltage Range - 100 to 800 V
Forward Current - 5 Ampere

SOFT RECOVERY FAST SWITCHING RECTIFIER

FEATURES

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

DO-27



Dimensions in inches and (millimeters)

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

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%

PARAMETER		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℃		$I_{(AV)}$	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	T_A = 25℃	I_R	25					μ A
	T_A = 100℃		1.0					
Maximum Reverse Recovery Time（NOTE2）Tj=25℃		trr	200					ns
Typical Thermal Resistance (Note 1)		$R_{\theta J A}$	10					℃/W
Operating Junction Temperature Range		T_J	(-55 to +150)					℃
Storage Temperature Range		T_{STG}	(-55 to +150)					℃

Notes:

1. Thermal Resistance from junction to Ambient at .375”(9.5mm)lead length, P.C.board mounted.whith 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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SOFT RECOVERY FAST SWITCHING RECTIFIER

RATING AND CHARACTERISTIC CURVES BY500-100 - BY500-800

FIG.1-TYPICAL FORWARD CURRENT
DERATING CURVE

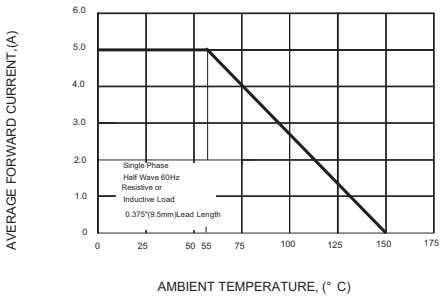


FIG.2-MAXIMUM NON-REPETITIVE PEAK
FORWARD SURGE CURRENT

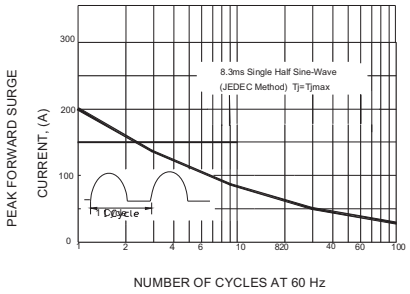


FIG.3-TYPICAL INSTANTANEOUS FORWARD
CHARACTERISTICS

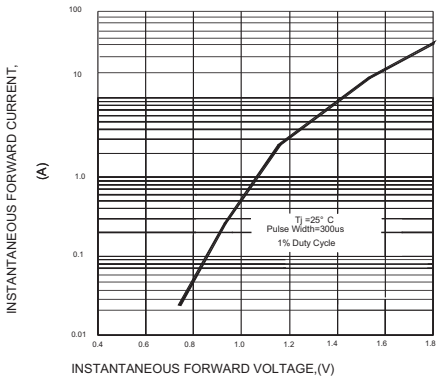


FIG.4-TYPICAL REVERSE
CHARACTERISTICS

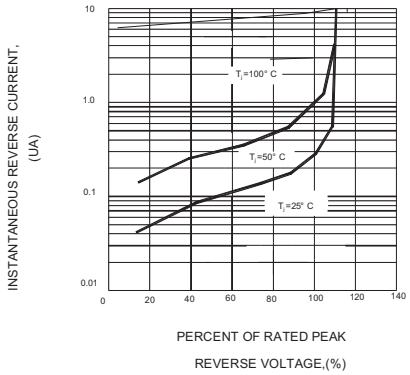


FIG.5-TYPICAL JUNVTION CAPAVITANCE

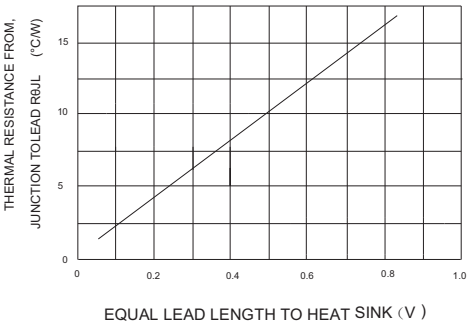
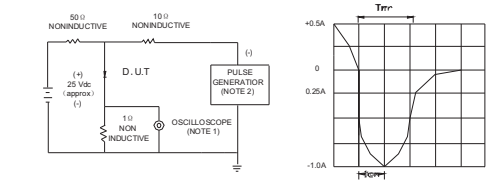


FIG.6-TEST CIRCUIT DIAGRAM AND REVERSE
RECOVERY TIME CHARACTERISTIC



Disclaimer

All product, product specifications and data are subject to change without notice to improve reliability, function or design or otherwise.

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