



**TAYCHIPST**

SOFT RECOVERY FAST-SWITCHING PLASTIC RECTIFIERS

**BY500-100 THRU BY500-800**

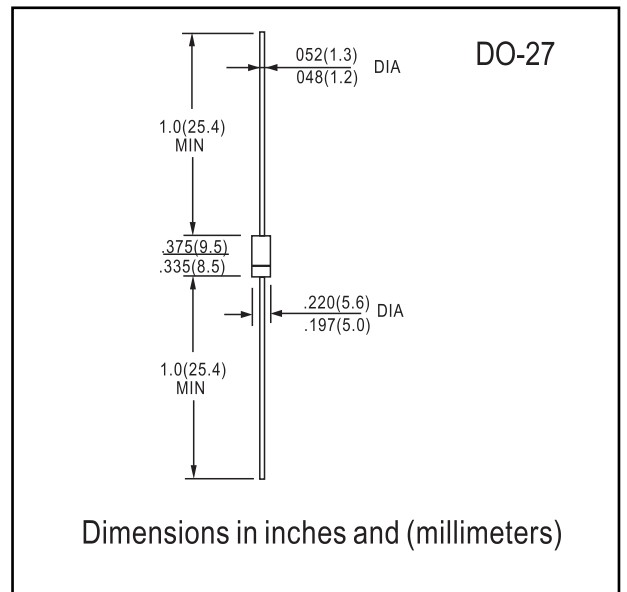
100V-800V 5.0A

**FEATURES**

- Low coat construction
- Fast switching for high efficiency.
- 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

**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**

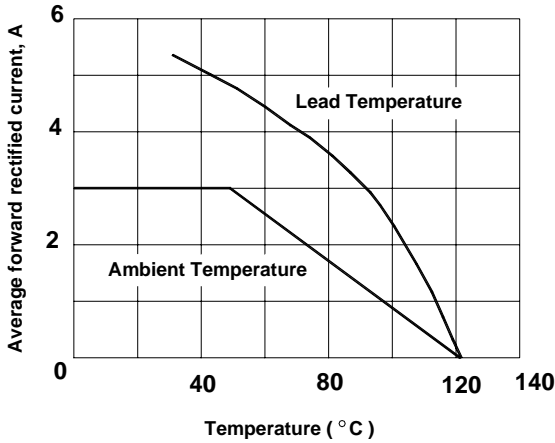
<b>MAXIMUM RATINGS</b> (T <sub>A</sub> = 25 °C unless otherwise noted)								
PARAMETER	SYMBOL	BY500-100	BY500-200	BY500-400	BY500-600	BY500-800	UNIT	
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	100	200	400	600	800	V	
Maximum RMS voltage	V <sub>RMS</sub>	70	140	280	420	560	V	
Maximum DC blocking voltage	V <sub>DC</sub>	100	200	400	600	800	V	
Maximum average forward rectified current 0.375" (9.5 mm) lead length at T <sub>L</sub> = 45 °C	I <sub>F(AV)</sub>	5.0						A
Peak forward surge current 10 ms single half sine-wave superimposed on rated load at T <sub>A</sub> = 25 °C	I <sub>FSM</sub>	200						A
Maximum repetitive peak forward surge	I <sub>FRM</sub>	10						A
Operating junction temperature range	T <sub>J</sub>	- 50 to + 125						°C
Storage temperature range	T <sub>STG</sub>	- 50 to + 150						°C

<b>ELECTRICAL CHARACTERISTICS</b> (T <sub>A</sub> = 25 °C unless otherwise noted)								
PARAMETER	TEST CONDITIONS	SYMBOL	BY500-100	BY500-200	BY500-400	BY500-600	BY500-800	UNIT
Maximum instantaneous forward voltage	5.0 A	V <sub>F</sub>	1.35					V
Maximum DC reverse current at rated DC blocking voltage	T <sub>A</sub> = 25 °C	I <sub>R</sub>	10					μA
	T <sub>A</sub> = 100 °C		1.0					mA
Maximum reverse recovery time		t <sub>rr</sub>	200					ns
Maximum reverse recovery current	I <sub>F</sub> = 1.0 A, V <sub>R</sub> = 30 V, dI/dt = 50 A/μs, I <sub>rr</sub> = 10 % I <sub>RM</sub>	I <sub>RM(REC)</sub>	2.0					A
Typical junction capacitance	4.0 V, 1 MHz	C <sub>J</sub>	28					pF

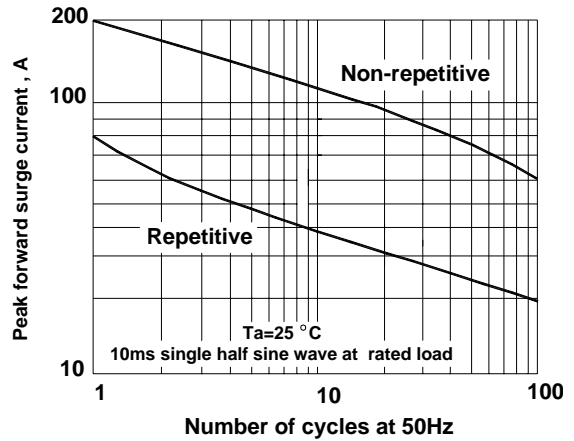


RATINGS AND CHARACTERISTIC CURVES BY500-100 THRU BY500-800

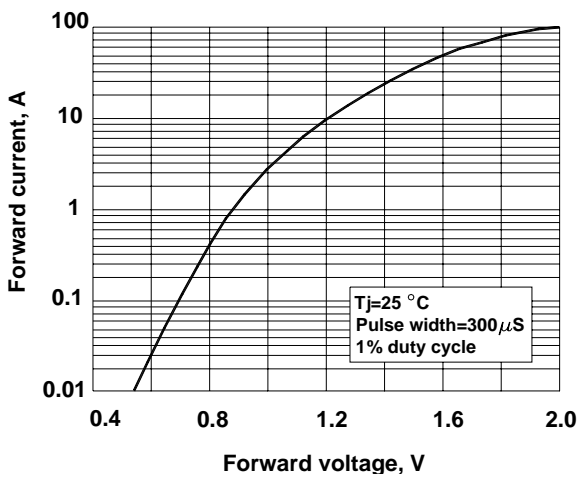
Forward current derating curve



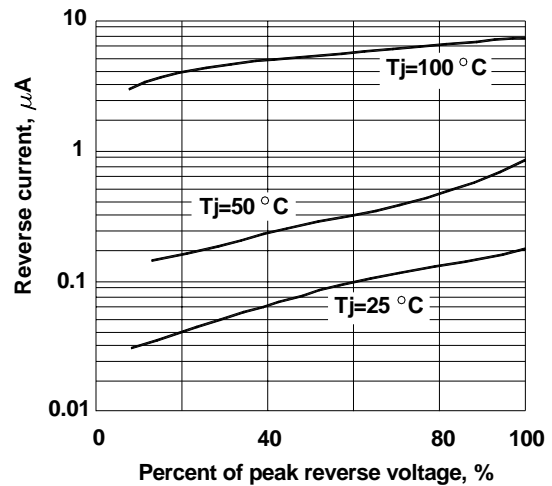
Maximum peak forward surge current



Typical Forward Characteristics



Typical Reverse Characteristics



Typical junction capacitance

