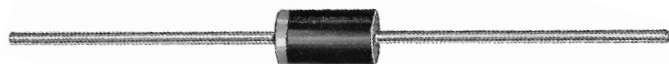


BY396 thru BY399

SOFT RECOVERY, FAST SWITCHING
PLASTIC RECTIFIER



VOLTAGE-100 TO 800 Volts
CURRENT -3.0 Amperes

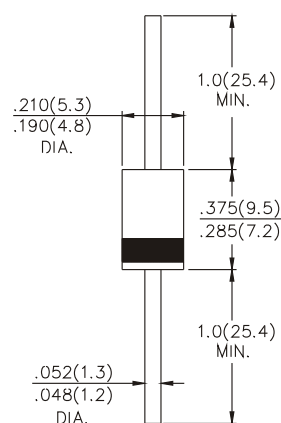
FEATURE

- High surge current capability
- Plastic has Underwriters Laboratory. Flammability classification 94V-O
- Void-free molded plastic package.
- 3.0 Ampere operation at $T_A=50^{\circ}\text{C}$ with no thermal runaway.
- Fast switching for high efficiency
- Exceeds environmental standards of MIL-STD-19500/228.

MECHANICAL DATA

- Case: JEDEC DO-201AD molded plastic
- Terminals: plated Axial leads, solderable per MIL-STD-750, Method 2026
- Polarity: Color Band denotes end
- Mounting position: Any
- Weight: 0.4 ounce, 1.1 gram

DO-201AD



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified.
Resistive or inductive load.

		BY396	BY397	BY398	BY399	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	100	200	400	800	Volts
Maximum RMS Voltage	V_{RMS}	70	140	280	560	Volts
Maximum DC Blocking Voltage	V_{DC}	100	200	400	800	Volts
Maximum Average Forward Rectified Current .375" (9.5mm) lead length at $T_A=50^{\circ}\text{C}$	$I_{(AV)}$	3.0				Amps
Peak Forward Surge Current 10ms single half sine-wave superimposed on rated load $T_A=25^{\circ}\text{C}$	I_{FSM}	100.0				Amps
Maximum Repetitive Peak Forward Surge (Note 1)	I_{FRM}	10.0				Amps
Maximum Instantaneous Forward Voltage at 3.0A	V_F	1.3				Volts
Maximum DC Reverse Current $T_A=25^{\circ}\text{C}$ at Rated DC Blocking Voltage $T_A=100^{\circ}\text{C}$	I_R	10.0 500				μA
Maximum Reverse Recovery Time (Note 3) $T_J=25^{\circ}\text{C}$	T_{RR}	150				nS
Typical Junction Capacitance (Note 2)	C_J	28.0				pF
Typical Thermal Resistance (Note 4)	$R_{\theta JA}$	22.0				$^{\circ}\text{C} / \text{W}$
Operating Temperature Range	T_J	-50 to +125				$^{\circ}\text{C}$
Storage Temperature Range	T_{STG}	-50 to +150				$^{\circ}\text{C}$

- Notes : 1. Repetitive Peak Forward Surge Current at $f < 15\text{KHz}$.
 2. Measured at 1MHz and applied reverse voltage of 4.0 volts.
 3. Reverse Recovery Test Conditions : $I_F=0.5\text{A}$, $I_R=1.0\text{A}$, $I_{rr}=0.25\text{A}$.
 4. Thermal Resistance from Junction to Ambient at .375" (9.5mm) lead lengths with both leads to heat sink.

BY396 thru BY399

SOFT RECOVERY, FAST SWITCHING
PLASTIC RECTIFIER



CHENG-YI
ELECTRONIC

RATING AND CHARACTERISTICS CURVES BY396 THRU BY399

Fig.1 - FORWARD CURRENT DERATING CURVE

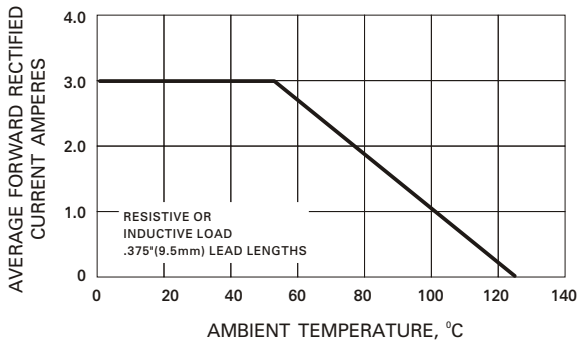


Fig.2 - MAXIMUM NON-REPETITIVE PEAK
FORWARD SURGE CURRENT

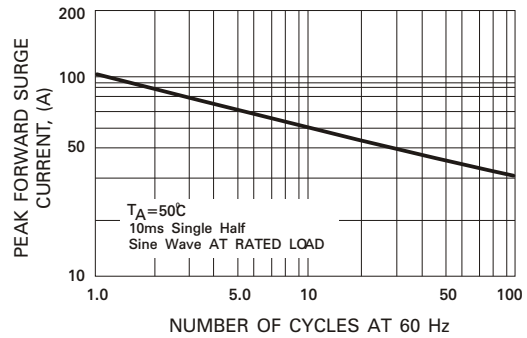


Fig.3 - TYPICAL INSTANTANEOUS
FORWARD CHARACTERISTICS

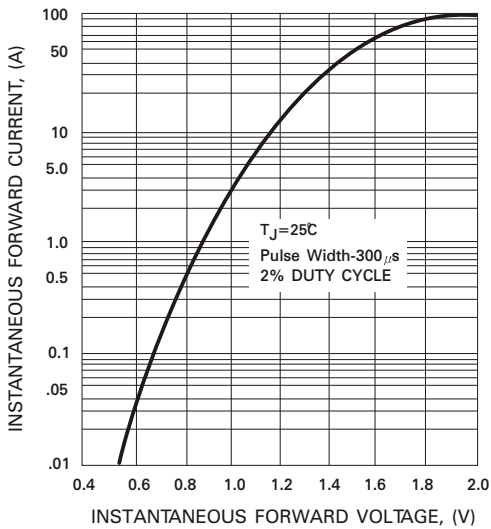


Fig.4- TYPICAL REVERSE CHARACTERISTICS

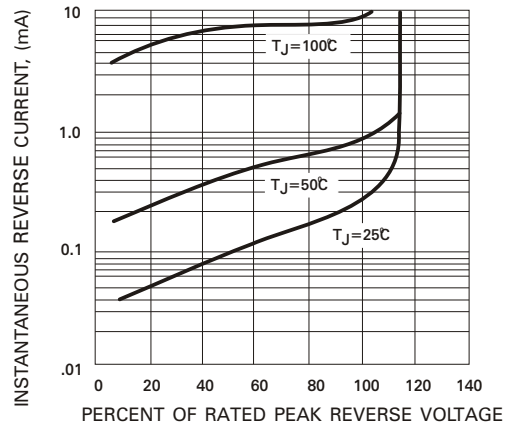


Fig.5 - TYPICAL JUNCTION CAPACITANCE

