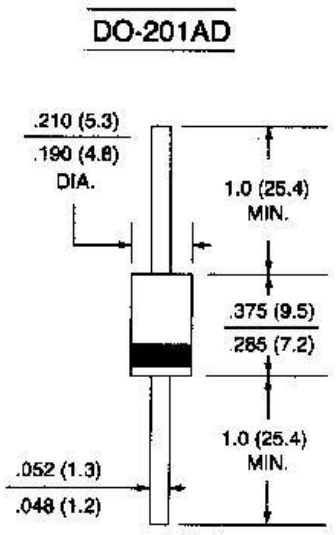
BY396 THRU BY399

SOFT RECOVERY, FAST SWITCHING PLASTIC RECTIFIER
VOLTAGE - 100 to 800 Volts CURRENT - 3.0 Amperes

FEATURES

- High surge current capability
- Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- Void-free molded plastic package
- 3.0 Ampere operation at T_A=55 with no thermal runaway
- Fast switching for high efficiency
- Exceeds environmental standards of MIL-S-19500/228



Dimensions in inches and (millimeters)

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: .04 ounce, 1.1gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 ambient temperature unless otherwise specified.

Resistive or inductive load.

	SYMBOLS	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 lengths at T_A=50	$1_{(AV)}$	3.0				Amps
Peak Forward Surge Current 10ms single half sine-wave superimposed on rated load at T_A=25	1_{FSM}	100.0				Amps
Maximum Repetitive Peak Forward Surge (Note 1)	1_{FRM}	10.0				Amps
Maximum Instantaneous Forward Voltage at 3.0A	V_F	1.30				Volts
Maximum DC Reverse Current T_A=25 At Rated DC Blocking Voltage T_A=100	I_R	10.0 500				A
Maximum Reverse Recovery Time (Note 3) T_J=25	T_{RR}	150				ns
Typical Junction Capacitance (Note 2)	C_J	60				pf
Typical Thermal Resistance (Note 4)	R JA	22.0				/W
Operating Temperature Range	T_J	-50 to +125				
Storage Temperature Range	T_{STG}	-50 to +150				

NOTES:

1. Repetitive Peak Forward Surge Current at f<15HKz.
2. Measured at 1 MHz. And applied reverse voltage of 4.0 volts.
3. Reverse Recovery Test Conditions; I_F=0.5A,I_R=1.0A,Irr=0.25A.
4. Thermal Resistance from Junction to Ambient at .375" lead lengths with both leads to heat sink.

RATING AND CHARACTERISTIC CURVES BY396 THRU BY399

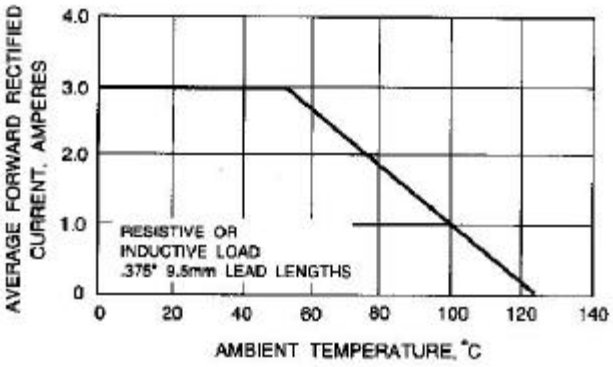


Fig. 1-FORWARD CURRENT DERATING CURVE

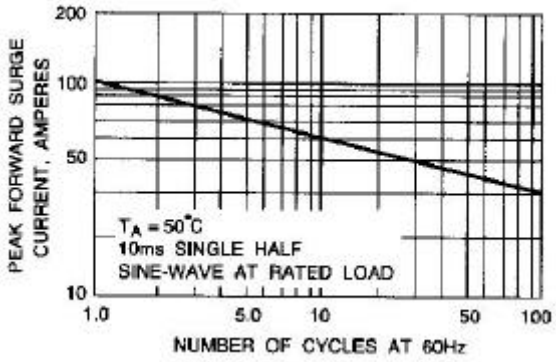


Fig. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

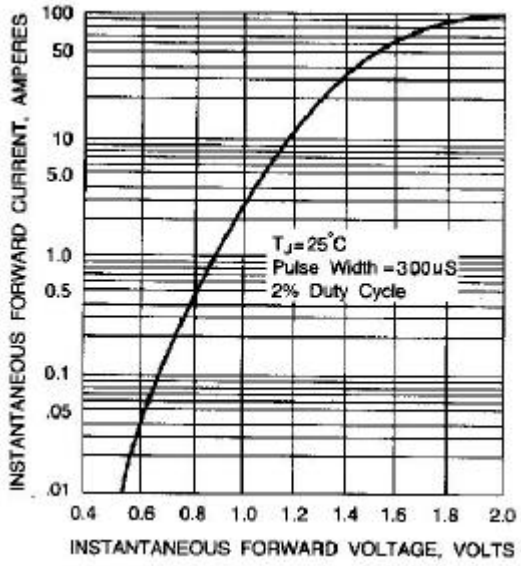


Fig. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

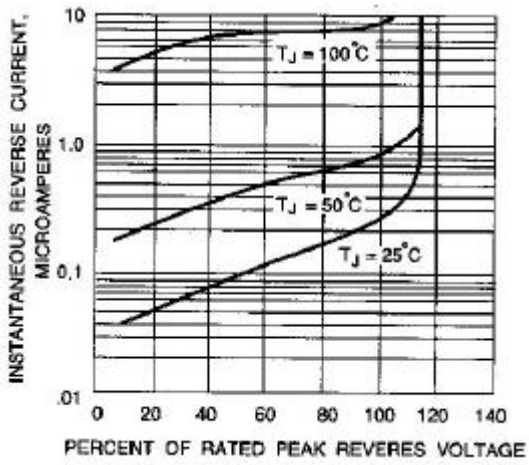


Fig. 4-TYPICAL REVERSE CHARACTERISTICS

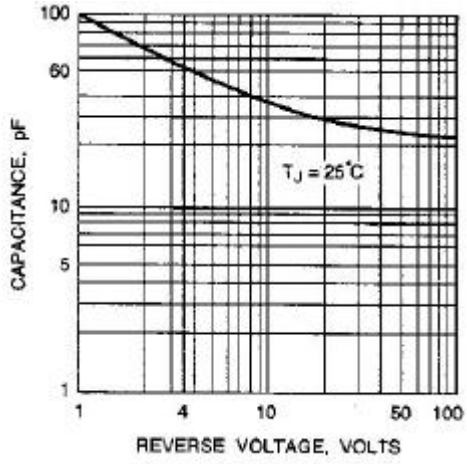


Fig. 5-TYPICAL JUNCTION CAPACITANCE