

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

MECHANICAL DATA

Case: JEDEC DO-201AD molded plastic

Terminals: Plated Axial leads, solderable per

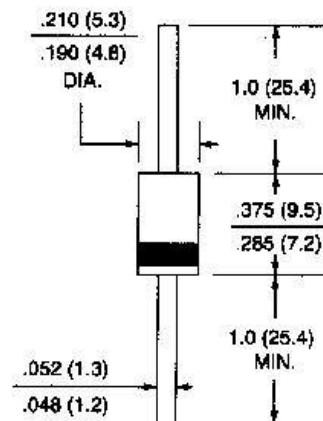
MIL-STD-750, Method 2026

Polarity: Color Band denotes end

Mounting Position: Any

Weight: .04 ounce, 1.1gram

DO-201AD



Dimensions in inches and (millimeters)

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 $T_A=50$	$I_{(AV)}$	3.0				Amps
Peak Forward Surge Current 10ms single half sine-wave superimposed on rated load at $T_A=25$	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	1.30				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 $f < 15\text{kHz}$.
2. Measured at 1 MHz. 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" lead lengths with both leads to heat sink.

RATING AND CHARACTERISTIC CURVES BY396 THRU BY399

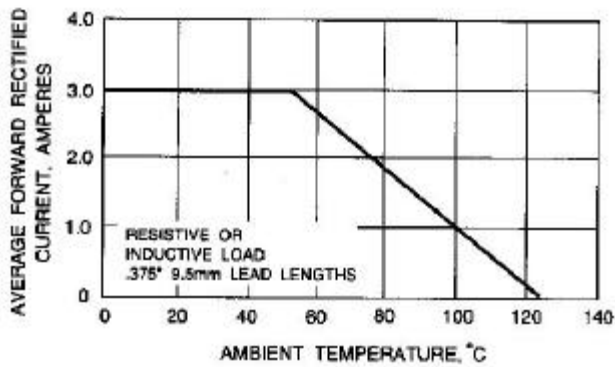


Fig. 1-FORWARD CURRENT DERATING CURVE

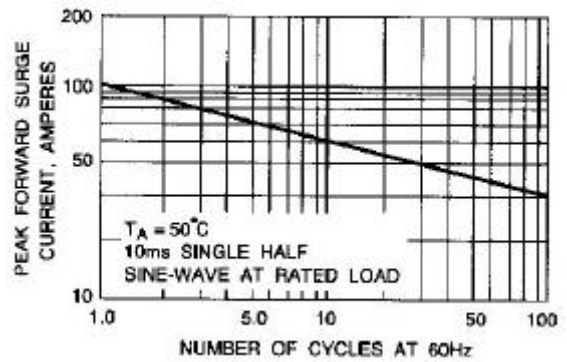


Fig. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

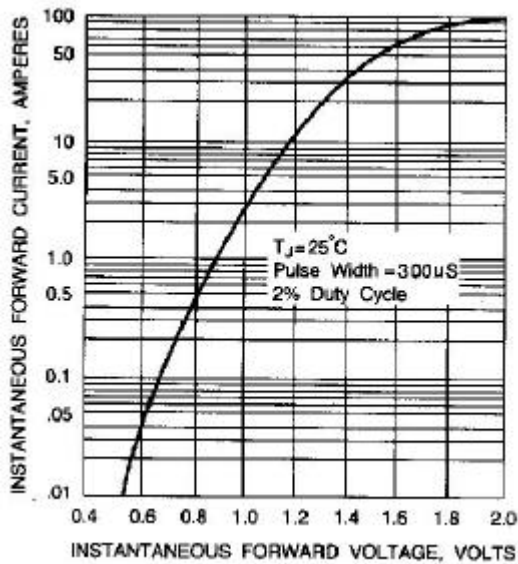


Fig. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

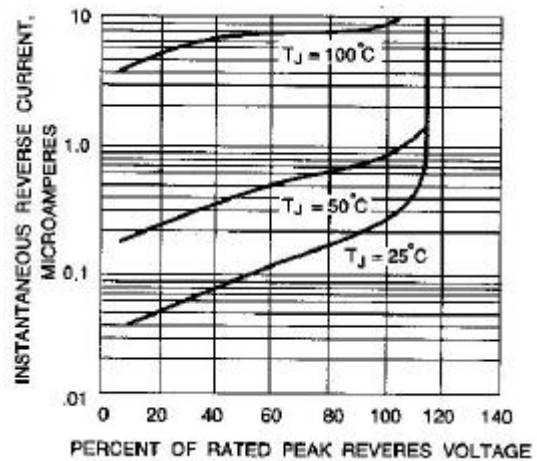


Fig. 4-TYPICAL REVERSE CHARACTERISTICS

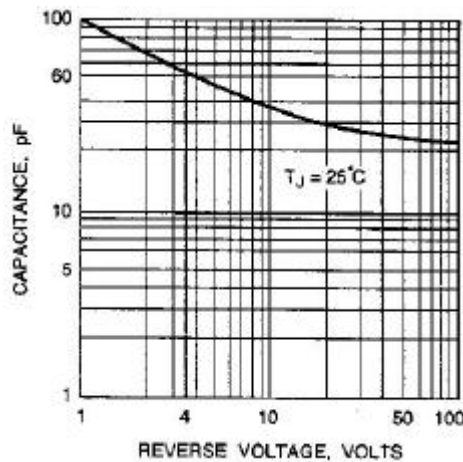


Fig. 5-TYPICAL JUNCTION CAPACITANCE