

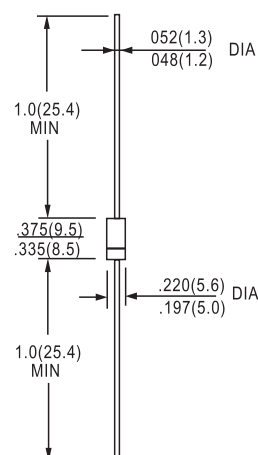
FEATURES

- High surge current capability
- Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- Void-free molded plastic package
- 3.0 Ampere operation
at $T_A=55^\circ\text{C}$ 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-27



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified.
Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%

Type Number		BY396	BY397	BY398	BY399	UNITS
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	100	200	400	800	V
Maximum RMS Voltage	V_{RMS}	70	140	280	560	V
Maximum DC Blocking Voltage	V_{DC}	100	200	400	800	V
Maximum Average Forward Rectified Current .375"(9.5mm) Lead Length @ $T_A = 55^\circ\text{C}$	$I_{F(AV)}$	3.0				A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	150				A
Maximum Instantaneous Forward Voltage @3.0A	V_F	1.2				V
Maximum DC Reverse Current @ $T_A = 25^\circ\text{C}$ at Rated DC Blocking Voltage @ $T_A = 100^\circ\text{C}$	I_R	10 150				μA μA
Maximum Reverse Recovery Time (Note 1)	T_{RR}	250				nS
Typical Junction Capacitance (Note 2)	C_J	60				pF
Operating Temperature Range	T_J	-55 to $+125$				$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 to $+150$				$^\circ\text{C}$

NOTES: 1. Reverse Recovery Test Conditions: $I_F=0.5\text{A}$, $I_R=1.0\text{A}$, $I_{RR}=0.25\text{A}$
2. Measured at 1 MHz and Applied Reverse Voltage of 4.0 Volts D.C.

RATINGS AND CHARACTERISTIC CURVES BY396 THRU BY399

Fig.1 - FORWARD CURRENT DERATING CURVE

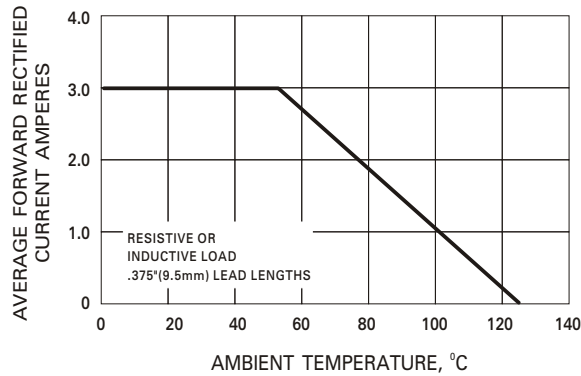


FIG.2- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

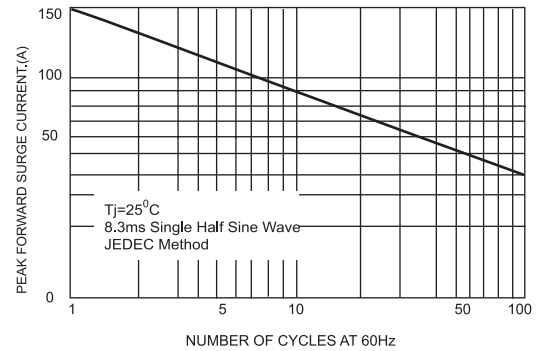


FIG.3-TYPICAL FORWARD CHARACTERISTICS

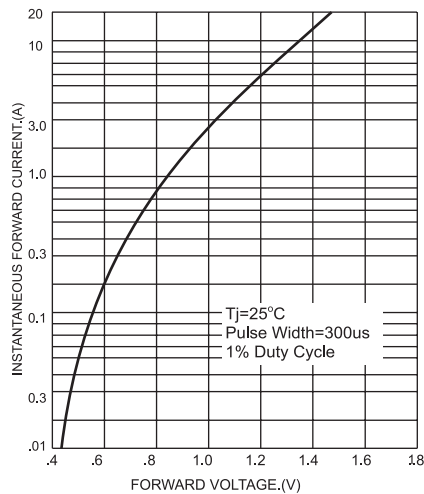


Fig.4- TYPICAL REVERSE CHARACTERISTICS

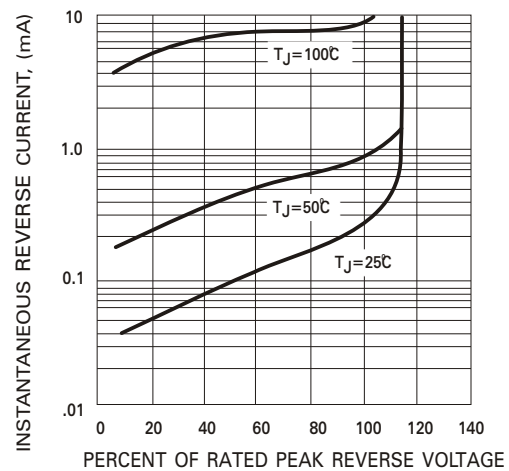


Fig.5 - TYPICAL JUNCTION CAPACITANCE

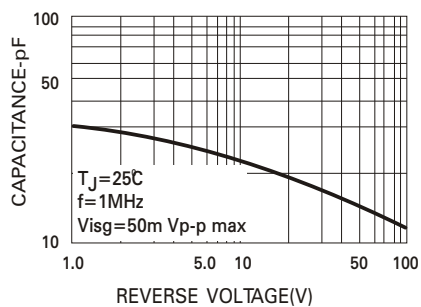


FIG.6 - REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

