

DATA SHEET

BY396 thru BY399

SOFT RECOVERY, FAST SWITCHING PLASTIC RECTIFIER

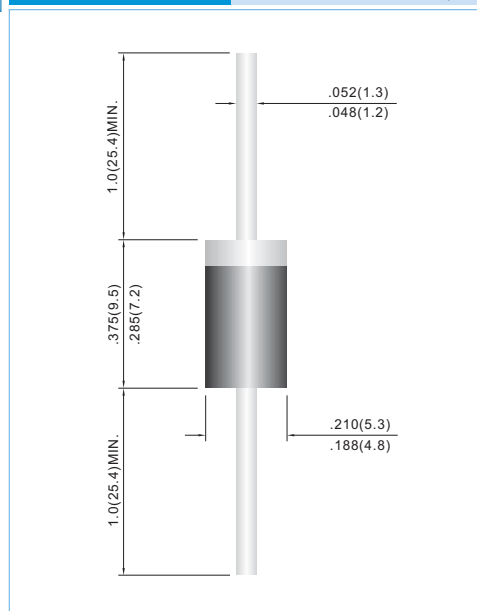
VOLTAGE	50 to 1000 Volts	CURRENT	3.0 Amperes	DO-201AD	Unit: inch(mm)
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FEATURES

- High current capability.
- Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- Void-free molded plastic package
- Exceeds environmental standards of MIL-S-19500/228
- Fast switching for high efficiency.
- Both normal and Pb free product are available :
Normal : 80~95% Sn, 5~20% Pb
Pb free: 98.5% Sn above

MECHANICAL DATA

Case: Molded plastic, DO-201AD
Terminals: Axial leads, solderable to MIL-STD-202, Method 208
Polarity: Color Band denotes cathode end
Mounting Position: Any
Weight: 0.04 ounce, 1.1 gram



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified. Resistive or inductive load, 60Hz.

PARAMETER	SYMBOL	BY396	BY397	BY398	BY399	UNITS
Maximum Recurrent 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 Current .375"(9.5mm) lead length at $T_A=50^{\circ}C$	I_{AV}	3.0				A
Peak Forward Surge Current : 10ms single half sine-wave superimposed on rated load(JEDEC method)	I_{FSM}	100				A
Maximum Repetitive Peak Forward Surge (Note 1)	I_{FRM}	10				A
Maximum Forward Voltage at 3.0A	V_F	1.3				V
Maximum DC Reverse Current at $T_A=25^{\circ}C$ Rated DC Blocking Voltage $T_A=100^{\circ}C$	I_R	10 500				μA
Maximum Reverse Recovery Time (Note 2)	T_{RR}	150				ns
Typical Junction capacitance (Note 3)	C_J	60				pF
Typical Thermal Resistance(Note 4)	$R_{\theta JA}$	22				$^{\circ}C / W$
Operating Junction Temperature Range	T_J	-55 TO +125				$^{\circ}C$
Storage Temperature Range	T_{STG}	-55 TO +150				$^{\circ}C$

- NOTES:1. Repetitive Peak Forward Surge Current at $f < 15KHz$.
2. Reverse Recovery Test Conditions: $I_F = .5A$, $I_R = 1A$, $I_{rr} = .25A$.
3. Measured at 1 MHz and applied reverse voltage of 4.0 VDC.
4. Thermal resistance from junction to ambient and from junction to lead length 0.375"(9.5mm) P.C.B. mounted.

RATING AND CHARACTERISTIC CURVES

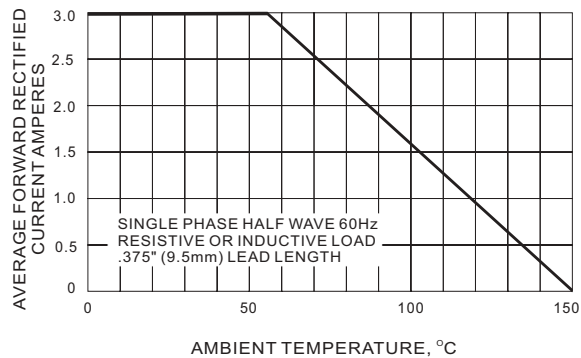


FIG.1 FORWARD CURRENT DERATING CURVE

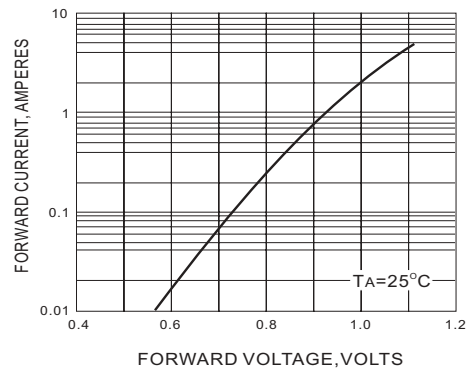


FIG.2 TYPICAL FORWARD CHARACTERISTIC

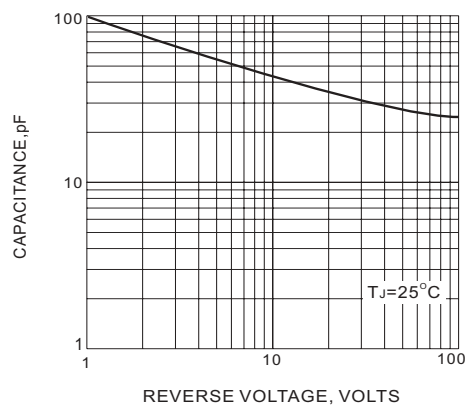


FIG.3 TYPICAL JUNCTION CAPACITANCE

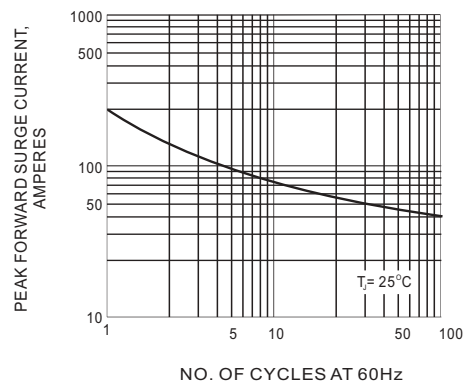


FIG.4 PEAK FORWARD SURGE CURRENT