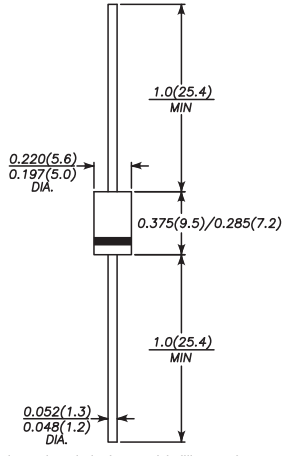
BY396 THRU BY399

FAST RECOVERY RECTIFIERS

Reverse Voltage - 100 to 800 Volts Forward Current - 3.0 Amperes

DO-201AD



Dimensions in inches and (millimeters)

FEATURES

- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- Fast switching for high efficiency
- Low reverse leakage
- High forward surge current capability
- High temperature soldering guaranteed:
  260°C/10 seconds,0.375"(9.5mm) lead length,
  5 lbs. (2.3kg) tension

MECHANICAL DATA

Case: DO-201AD molded plastic body
Terminals: Plated axial leads, solderable per MIL-STD-750, Method 2026
Polarity: Color band denotes cathode end
Mounting Position: Any
Weight:0.012 ounce, 1.10 grams

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25℃ ambient temperature unless otherwise specified.
Single phase half-wave 60Hz,resistive or inductive load,for capacitive load current derate by 20%.

	SYMBOLS	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 0.375"(9.5mm) lead length at T_A=75℃	$I_{(AV)}$	3.0				A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	200.0				A
Maximum instantaneous forward voltage at 3.0A	V_F	1.3				V
Maximum DC reverse current T_A=25℃ at rated DC blocking voltage T_A=100℃	I_R	10.0 100.0				μA
Maximum reverse recovery time (NOTE 1)	t_{rr}	500				ns
Typical junction capacitance (NOTE 2)	C_J	60.0				pF
Typical thermal resistance (NOTE 3)	$R_{\theta JA}$	20.0				°C/W
Operating junction and storage temperature range	T_J,T_{STG}	-55 to +150				°C

Note:1.Reverse recovery condition I_F=0.5A,I_R=1.0A,Irr=0.25A
2.Measured at 1MHz and applied reverse voltage of 4.0V D.C.
3.Thermal resistance from junction to ambient at 0.375" (9.5mm)lead length,P.C.B. mounted

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RATINGS AND CHARACTERISTIC CURVES BY396 THRU BY399

FIG. 1- FORWARD CURRENT DERATING CURVE

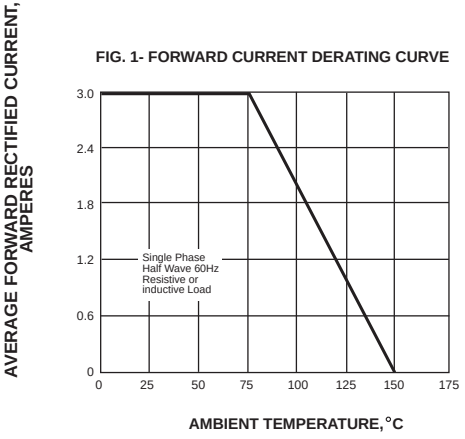


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

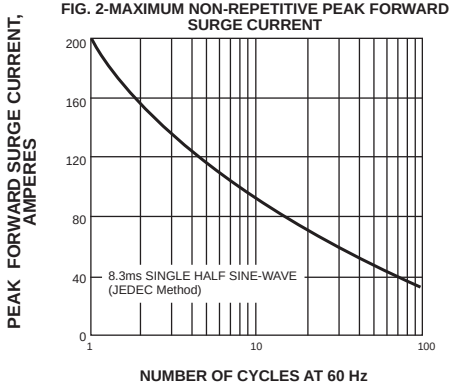


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

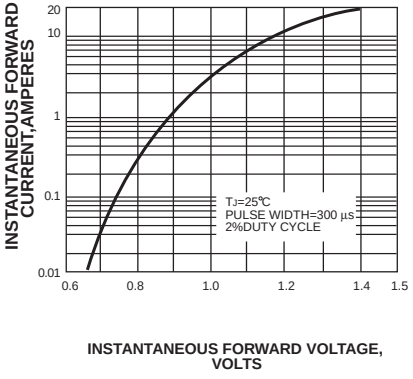


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

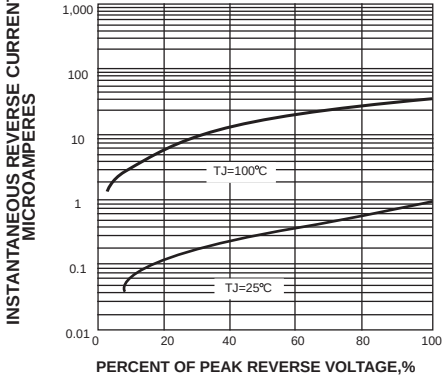


FIG. 5-TYPICAL JUNCTION CAPACITANCE

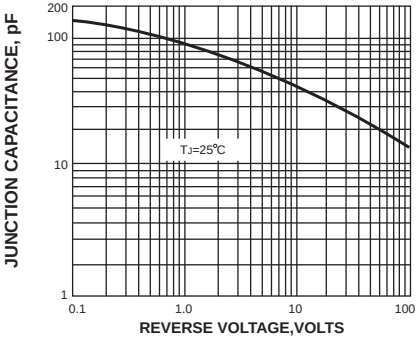
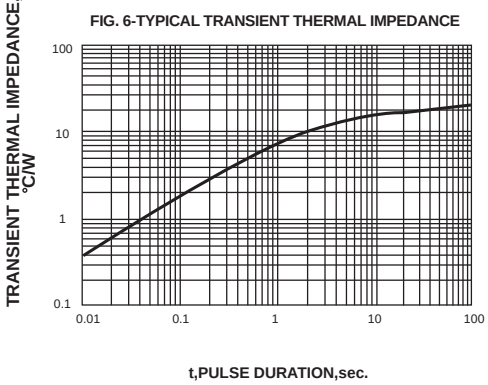


FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE



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