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3A FAST RECOVERY PLASTIC RECTIFIER

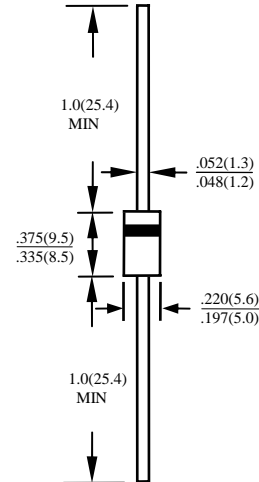
BY396 THRU BY399

FEATURES

- LOW COST
- UL 94V0 FLAME RETARDANT EPOXY MOLDING COMPOUND
- DIFFUSED JUNCTION
- HIGH SURGE CURRENT CAPABILITY

MECHANICAL DATA

- CASE: TRANSFER MOLDED, DO201AD, DIMENSIONS IN INCHES AND (MILLIMETERS)
- LEADS: SOLDERABLE PER MIL-STD-202, METHOD 208
- POLARITY: CATHODE INDICATED BY COLOR BAND
- WEIGHT: 1.2 GRAMS



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS RATINGS AT 25°C AMBIENT TEMPERATURE UNLESS OTHERWISE SPECIFIED SINGLE PHASE, HALF WAVE, 60 HZ, RESISTIVE OR INDUCTIVE LOAD. FOR CAPACITIVE LOAD, DERATE CURRENT BY 20%

RATINGS	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 RECTIFIED CURRENT 0.375" (9.5mm) LEAD LENGTH AT $T_A=55^\circ\text{C}$	I_O	3.0				A
PEAK FORWARD SURGE CURRENT, 8.3ms SINGLE HALF SINE-WAVE SUPERIMPOSED ON RATED LOAD	I_{FSM}	100				A
TYPICAL JUNCTION CAPACITANCE (NOTE 1)	C_J	28				PF
TYPICAL THERMAL RESISTANCE (NOTE 2)	$R_{\theta ja}$	20				°C/W
STORAGE TEMPERATURE RANGE	T_{STG}	- 55 TO + 150				°C
OPERATING TEMPERATURE RANGE	T_{OP}	- 55 TO + 125				°C

ELECTRICAL CHARACTERISTICS ($A_T T_A=25^\circ\text{C}$ UNLESS OTHERWISE NOTED)

CHARACTERISTICS	SYMBOL	BY396	BY397	BY398	BY399	UNITS
MAXIMUM FORWARD VOLTAGE AT I_O DC	V_F	1.3				V
MAXIMUM REVERSE CURRENT AT 25°C	I_R	10				μA
MAXIMUM REVERSE CURRENT AT 100°C	I_R	100				μA
MAXIMUM REVERSE RECOVERY TIME (NOTE 3)	T_{RR}	150			250	nS

- NOTE:
1. MEASURED AT 1 MHZ AND APPLIED REVERSE VOLTAGE OF 4.0 VOLTS
 2. BOTH LEADS ATTACHED TO HEAT SINK 63.5x63.5x1t(mm) COPPER PLATE AT LEAD LENGTH 5mm
 3. REVERSE RECOVERY TEST CONDITIONS: $I_F=0.5A$, $I_R=1.0A$, $I_{RR}=0.25A$

RATINGS AND CHARACTERISTIC CURVE BY396 THRU BY399

FIG. 1-TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC

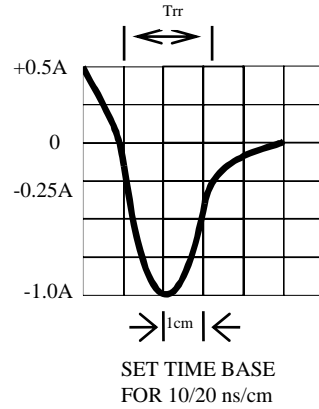
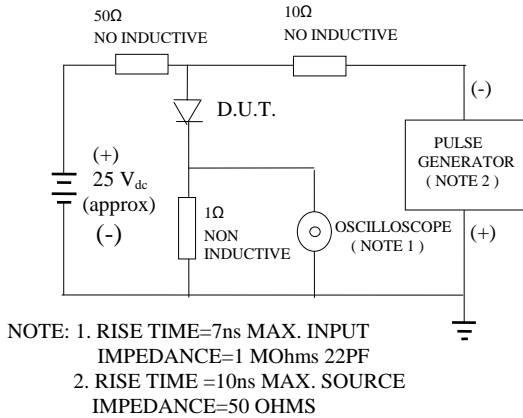


Fig. 2-MAXIMUM CURRENT DERATING CURVE

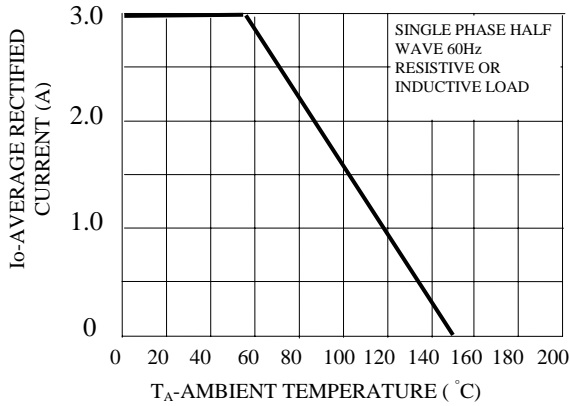


Fig. 3-MAXIMUM FORWARD SURGE NUMBER OF CYCLES

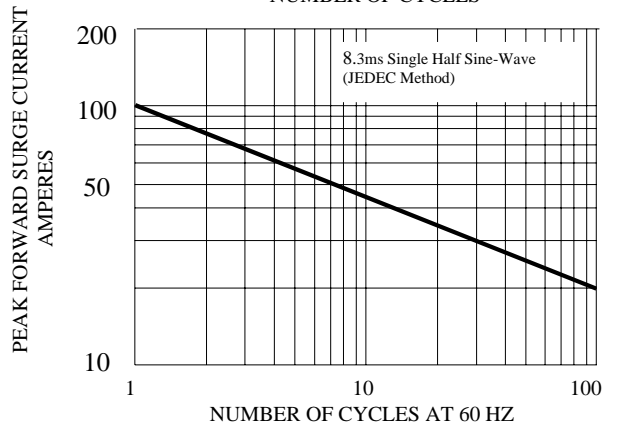


FIG. 4-TYPICAL JUNCTION CAPACITANCE

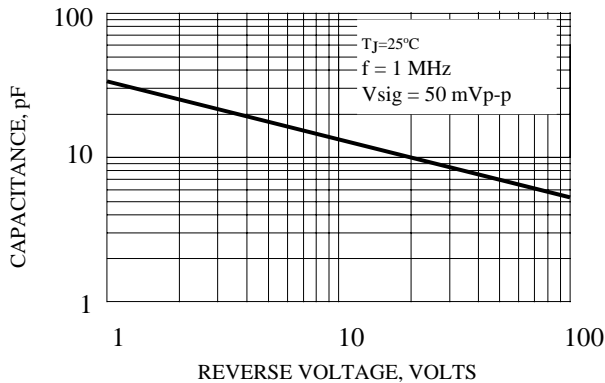


FIG. 5-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

