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## 3A FAST RECOVERY PLASTIC RECTIFIER

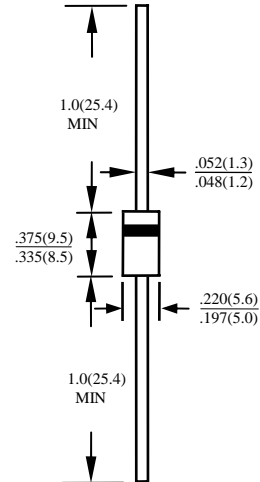
### BYW95AP THRU BYW96EP

#### FEATURES

- FAST RECOVERY TIMES
- UL 94V-0 FLAME RETARDANT EPOXY MOLDING COMPOUND
- LOW COST
- HIGH SURGE CURRENT CAPABILITY
- DIFFUSED JUNCTION

#### MECHANICAL DATA

- CASE: TRANSFER MOLDED, DO201AD, DIMENSIONS IN INCHES AND (MILLIMETERS)
- TERMINAL: 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	BYW95AP	BYW95BP	BYW95CP	BYW96DP	BYW96EP	UNITS	
MAXIMUM RECURRENT PEAK REVERSE VOLTAGE	$V_{RRM}$	200	400	600	800	1000	V	
MAXIMUM RMS VOLTAGE	$V_{RMS}$	140	280	420	560	700	V	
MAXIMUM DC BLOCKING VOLTAGE	$V_{DC}$	200	400	600	800	1000	V	
MAXIMUM AVERAGE FORWARD RECTIFIED CURRENT 0.375"(9.5mm) LEAD LENGTH AT $T_A=55^{\circ}C$	$I_o$	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						$^{\circ}C/W$
STORAGE TEMPERATURE RANGE	$T_{STG}$	- 55 TO + 150						$^{\circ}C$
OPERATING TEMPERATURE RANGE	$T_{OP}$	- 55 TO + 150						$^{\circ}C$

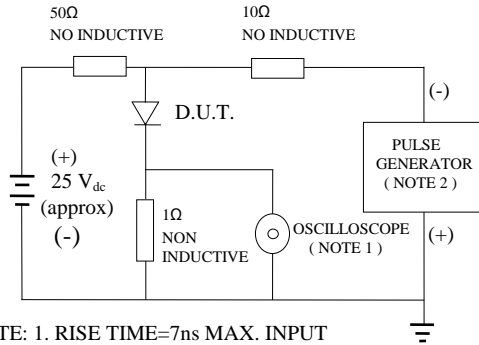
#### ELECTRICAL CHARACTERISTICS ( $A_T T_A = 25^{\circ}C$ UNLESS OTHERWISE NOTED)

CHARACTERISTICS	SYMBOL	BYW95AP	BYW95BP	BYW95CP	BYW96DP	BYW96EP	UNITS	
MAXIMUM FORWARD VOLTAGE AT $I_o$ DC	$V_F$	1.5						V
MAXIMUM REVERSE CURRENT AT 25°C	$I_R$	10						$\mu A$
MAXIMUM REVERSE CURRENT AT 100°C	$I_R$	100						$\mu A$
MAXIMUM REVERSE RECOVERY TIME (NOTE 2)	$T_{RR}$	150		250	300		nS	

- NOTE: 1. MEASURED AT 1 MHZ AND APPLIED REVERSE VOLTAGE OF 4.0 VOLTS  
 2. BOTH LEADS ATTACHED TO HEAT SINK 63.5×63.5×1(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 BYW95AP THRU BYW96EP

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



NOTE: 1. RISE TIME=7ns MAX. INPUT IMPEDANCE=1 MOhms 22PF  
 2. RISE TIME =10ns MAX. SOURCE IMPEDANCE=50OHMS

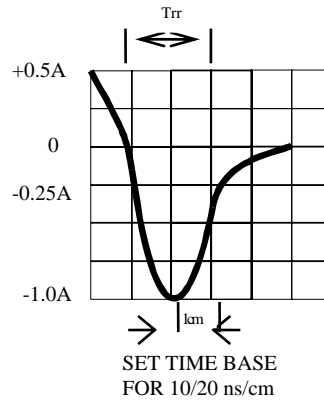


Fig. 2-MAXIMUM CURRENT DERATING CURVE

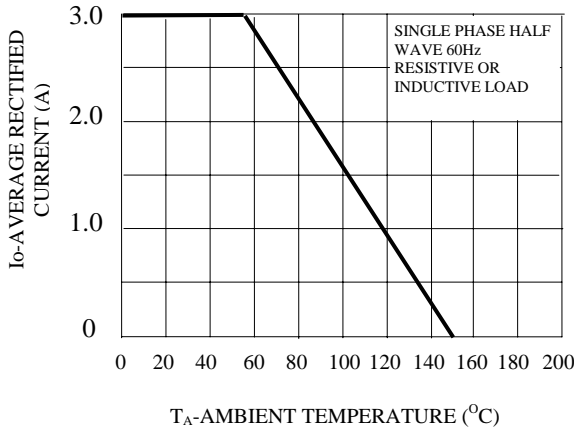


Fig. 3-MAXIMUM FORWARD SURGE NUMBER OF CYCLES

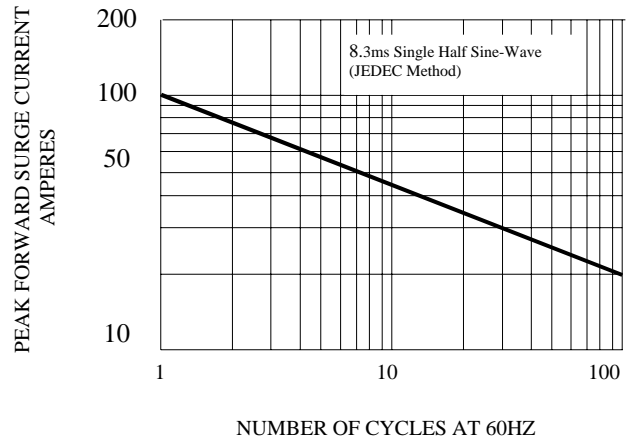


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

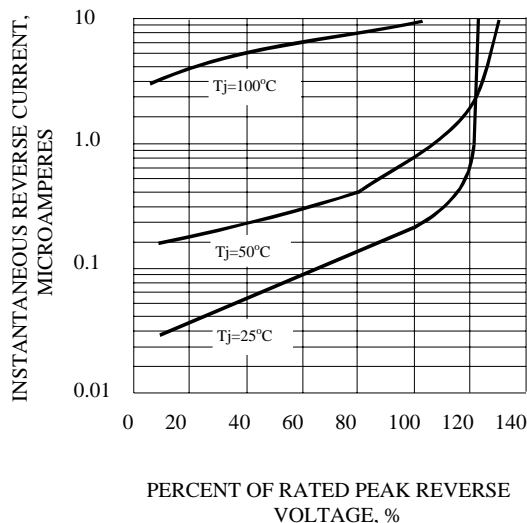


FIG. 5-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

