



**FRONTIER
ELECTRONICS CO., LTD.**

3A CLAMPER/DAMPER RECTIFIER

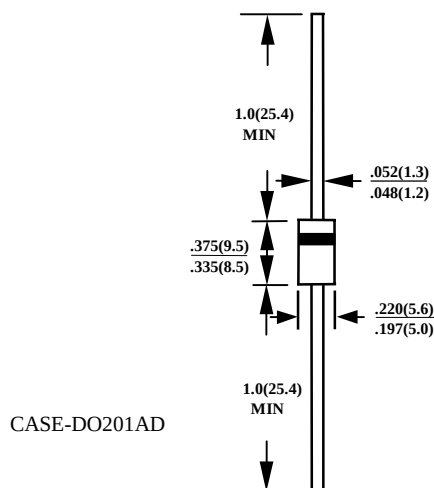
**BY228/13
THRU
BY228/15**

FEATURES

- DESIGNED FOR CLAMPING / DAMPING CIRCUIT OF HORIZONTAL DEFLECTION SYSTEM
- PLASTIC PACKAGE HAS UNDERWRITERS LABORATORY FLAMMABILITY CLASSIFICATION 94V-0
- VOID-FREE MOLDED PLASTIC
- HIGH TEMPERATURE SOLDERING GUARANTEED : 260°C/10 SECONDS/.375" (9.5mm) LEAD LENGTH/5 LBS. (2.3KG)

MECHANICAL DATA

- CASE : MOLDED CASE
- TERMINAL : AXIAL LEADS, SOLDERABLE PER MIL-STD-202, METHOD 208
- POLARITY : COLOR BAND DENOTES CATHODE
- MOUNTING POSITION : ANY
- WEIGHT : 1.2 GRAMS



DIMENSIONS IN INCHES AND (MILLIMETERS)

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	BY228/13	BY228/15	UNITS
MAXIMUM RECURRENT PEAK REVERSE VOLTAGE	V_{RRM}	1300	1500	V
MAXIMUM RMS VOLTAGE	V_{RMS}	910	1050	V
MAXIMUM DC BLOCKING VOLTAGE	V_{DC}	1300	1500	V
MAXIMUM AVERAGE FORWARD RECTIFIED CURRENT (SEE FIG.1)	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	40		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°C UNLESS OTHERWISE NOTED)

CHARACTERISTICS	SYMBOL	BY228/13	BY228/15	UNITS
MAXIMUM FORWARD VOLTAGE AT I_O DC	V_F	1.5@5A		V
MAXIMUM REVERSE CURRENT AT 25°C	I_R	5		μA
MAXIMUM REVERSE CURRENT AT 100°C	I_R	50		μA
MAXIMUM REVERSE RECOVERY TIME (NOTE 3)	T_{RR}	20		μS
MAXIMUM FORWARD RECOVERY TIME (NOTE 4)	T_{FR}	1.0		μS

NOTE :

1. MEASURED AT 1MHZ AND APPLIED REVERSE VOLTAGE OF 4.0 VOLTS
2. BOTH LEADS ATTACHED TO HEATSINK 63.5x 63.5x 1t(mm) COPPER PLATE AT LEAD LENGTH 5mm
3. TEST CONDITIONS: I_F = 1.0A, I_R = 50mA, di/dt =50 mA/μS
4. TEST CONDITIONS: I_F = 5.0A, T_R =0.1μS

RATINGS AND CHARACTERISTIC CURVES BY228/13 THRU BY228/15

FIG. 1 - FORWARD CURRENT DERATING CURVE

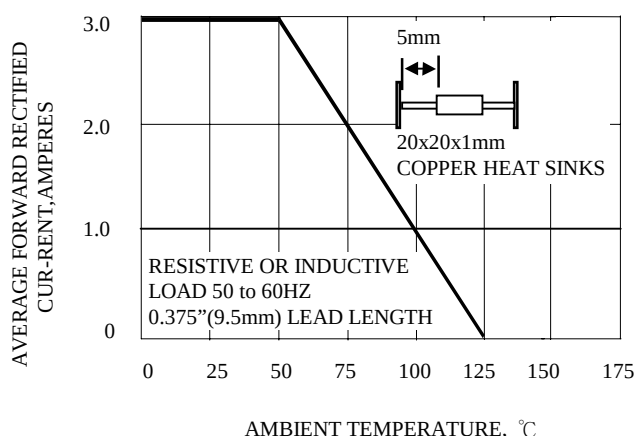


Fig. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

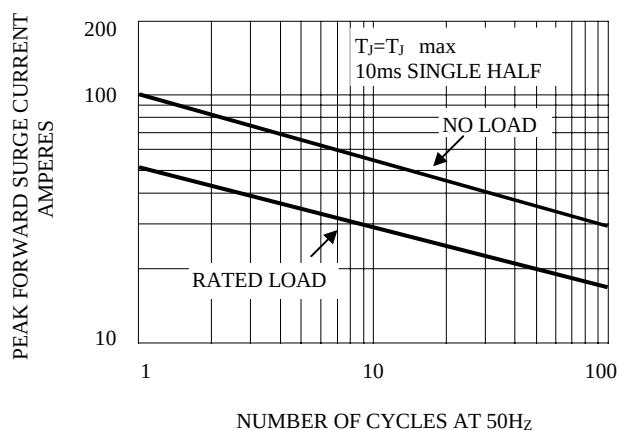


FIG. 3 - MAXIMUM PEAK REPETITIVE FORWARD SURGE CURRENT

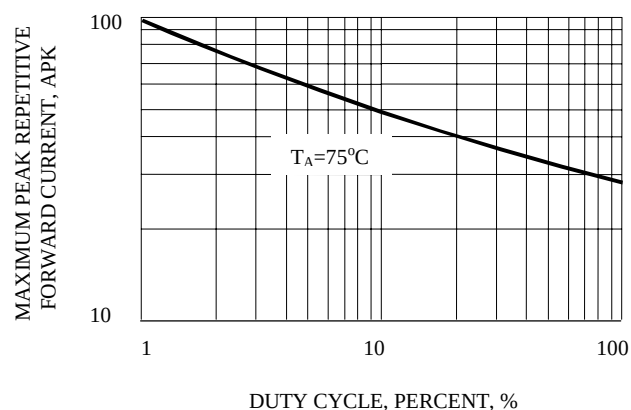


FIG. 4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

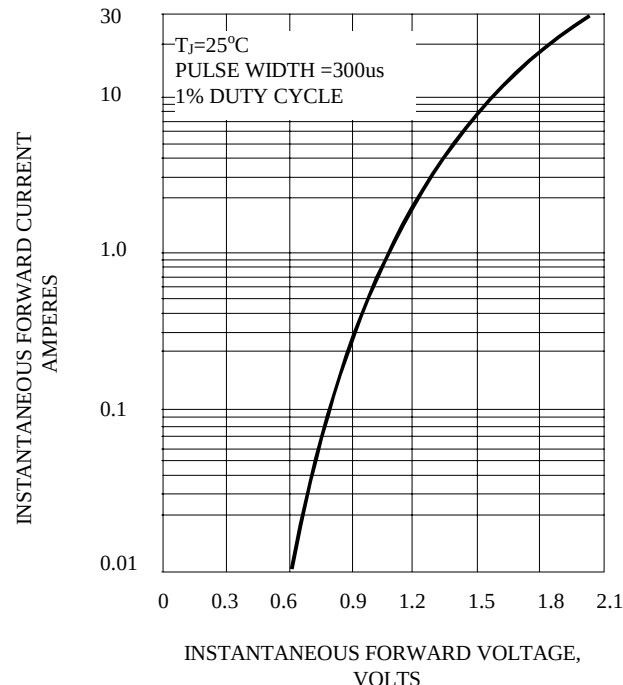


FIG. 5 - TYPICAL REVERSE CHARACTERISTICS

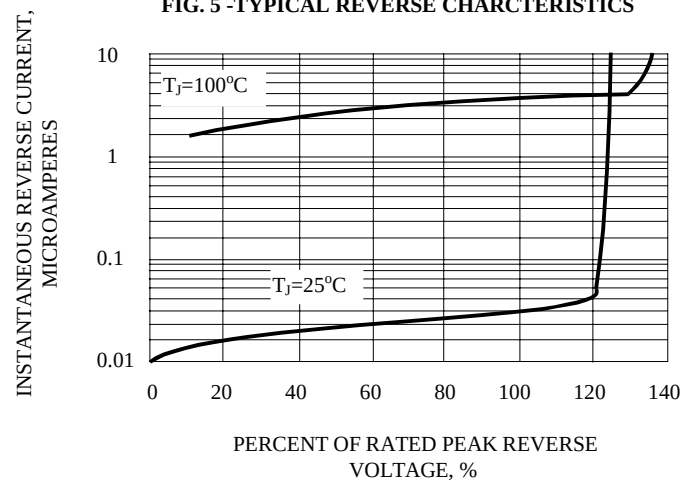


FIG. 6-TYPICAL JUNCTION CAPACITANCE

