



Frontier Electronics Corp.

667 E. COCHRAN STREET, SIMI VALLEY, CA 93065

TEL: (805) 522-9998 FAX: (805) 522-9989

E-mail: frontiersales@frontierusa.com

Web: <http://www.frontierusa.com>

1A MINIATURE GENERAL PURPOSE PLASTIC RECTIFIER

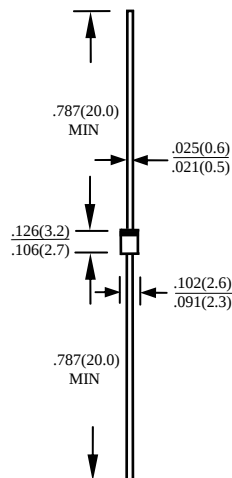
A005 THRU A10

FEATURES

- LOW FORWARD VOLTAGE
- HIGH CURRENT CAPABILITY
- LOW LEAKAGE CURRENT
- HIGH SURGE CAPABILITY
- LOW COST

MECHANICAL DATA

- CASE: R1, MOLDED PLASTIC USE UL 94V-0 RECOGNIZED FLAME RETARDANT EPOXY, DIMENSIONS IN INCHES AND (MILLIMETERS)
- TERMINALS: AXIAL LEADS, SOLDERABLE PER MIL-STD-202, METHOD 208
- POLARITY: COLOR BAND DENOTES CATHODE
- WEIGHT: 0.19 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	A005	A01	A02	A04	A06	A08	A10	UNITS
MAXIMUM RECURRENT PEAK REVERSE VOLTAGE	V_{RRM}	50	100	200	400	600	800	1000	V
MAXIMUM RMS VOLTAGE	V_{RMS}	35	70	140	280	420	560	700	V
MAXIMUM DC BLOCKING VOLTAGE	V_{DC}	50	100	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	1.0							A
PEAK FORWARD SURGE CURRENT, 8.3ms SINGLE HALF SINE-WAVE SUPERIMPOSED ON RATED LOAD	I_{FSM}	25							A
TYPICAL JUNCTION CAPACITANCE (NOTE 1)	C_J	15							PF
TYPICAL THERMAL RESISTANCE (NOTE 2)	$R_{\theta ja}$	50							$^{\circ}C/W$
STORAGE TEMPERATURE RANGE	T_{STG}	-55 TO + 175							$^{\circ}C$
OPERATING TEMPERATURE RANGE	T_{OP}	-55 TO + 175							$^{\circ}C$

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

CHARACTERISTICS	SYMBOL	A005	A01	A02	A04	A06	A08	A10	UNITS
MAXIMUM FORWARD VOLTAGE AT I_O DC	V_F	1.1							V
MAXIMUM REVERSE CURRENT AT 25°C	I_R	5.0							μA
MAXIMUM REVERSE CURRENT AT 100°C	I_R	50.0							μA

NOTE: 1. MEASURED AT 1MHZ AND APPLIED REVERSE VOLTAGE OF 4.0 VOLTS

2. BOTH LEADS ATTACHED TO HEAT SINK 20x20x1t(mm) COPPER PLATE AT LEAD LENGTH 5mm

RATINGS AND CHARACTERISTIC CURVE A005 THRU A10

Fig. 1-MAXIMUM CURRENT RATING
EFFECT OF COPPER AREA,
RESISTIVE/INDUCTIVE

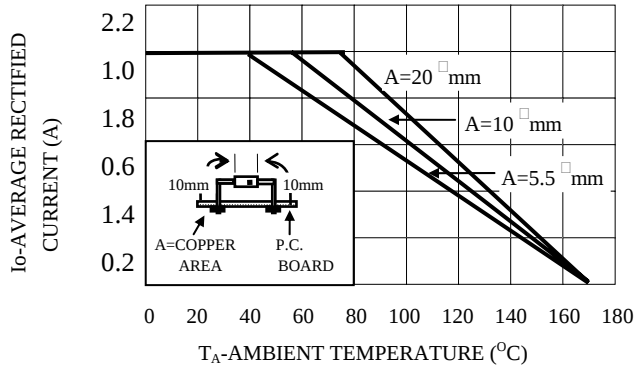


Fig. 2-MAXIMUM CURRENT RATING
CAPACITIVE LOAD, 10 mm LEAD LENGTHS

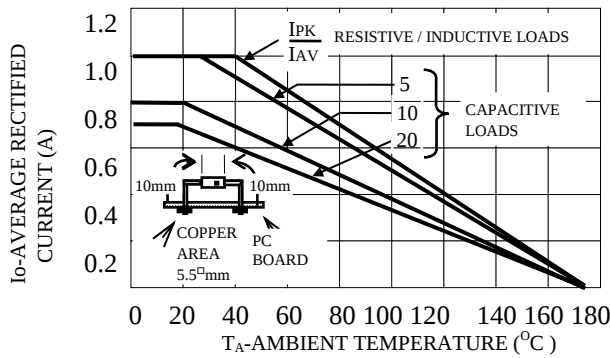


Fig. 3 MAXIMUM CURRENT RATING
EFFECT OF LEAD LENGTHS
RESISTIVE / INDUCTIVE LOAD

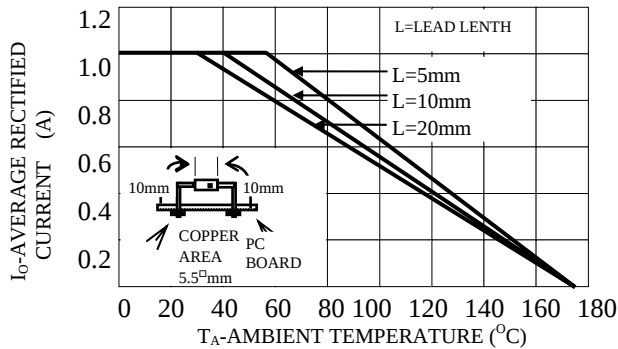


Fig. 4-TYPICAL FORWARD CHARACTERISTICS

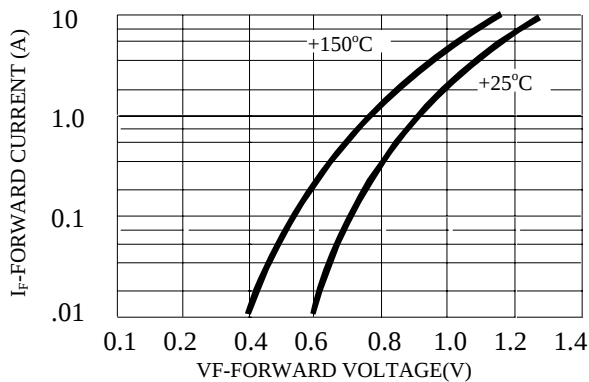


Fig. 5-MAXIMUM FORWARD SURGE
VS NUMBER OF CYCLES

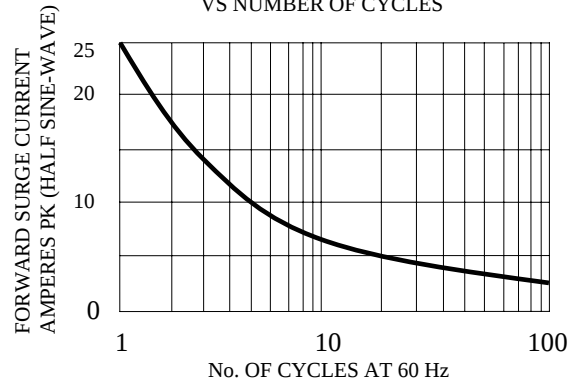


Fig. 6-TYPICAL REVERSE
CHARACTERISTIC

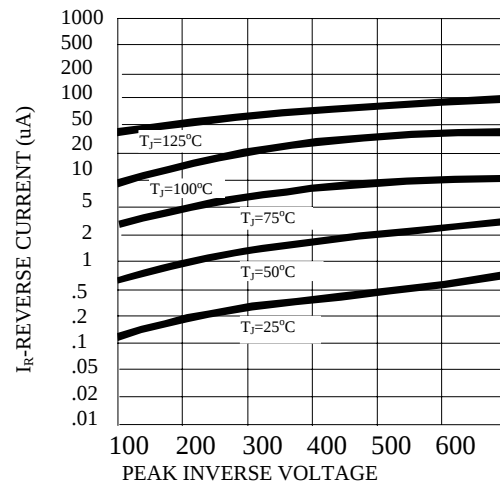


Fig. 7-TYPICAL JUNCTION CAPACITANCE

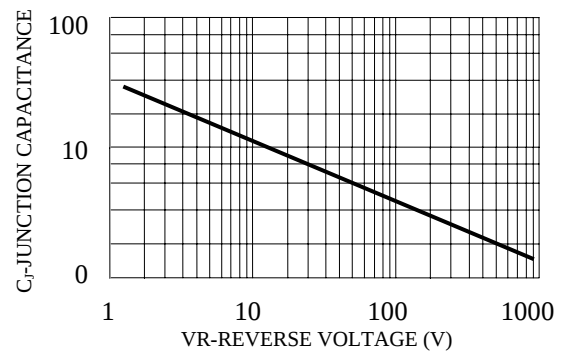


Fig. 8-FORWARD PULSE CURRENT
VS PULSE DURATION

