



**FRONTIER
ELECTRONICS CO., LTD.**

**GP10-005R
THRU
GP10-16R**

1A GENERAL PURPOSE PLASTIC RECTIFIER

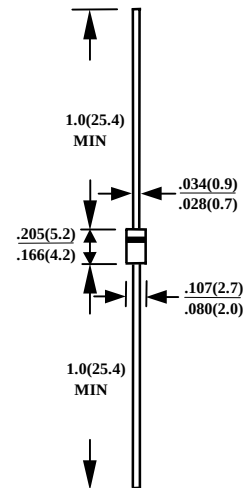
FEATURES

- LOW FORWARD VOLTAGE
- HIGH CURRENT CAPABILITY
- LOW LEAKAGE CURRENT
- HIGH SURGE CAPABILITY
- LOW COST
- BEVEL ROUND CHIP, AVALANCHE OPERATION

MECHANICAL DATA

- CASE : MOLDED PLASTIC USE UL 94V-0 RECOGNIZED
FLAME RETARDANT EPOXY
- TERMINALS : AXIAL LEADS, SOLDERABLE PER MIL-STD-
202, METHOD 208
- POLARITY : COLOR BAND DENOTES CATHODE
- WEIGHT : 0.34 GRAMS

CASE-DO41



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	GP10-005R	GP10-01R	GP10-02R	GP10-04R	GP10-06R	GP10-08R	GP10-10R	GP10-13R	GP10-15R	GP10-16R	UNITS
MAXIMUM RECURRENT PEAK REVERSE VOLTAGE	V_{RRM}	50	100	200	400	600	800	1000	1300	1500	1600	V
MAXIMUM RMS VOLTAGE	V_{RMS}	35	70	140	280	420	560	700	910	1050	1120	V
MAXIMUM DC BLOCKING VOLTAGE	V_{DC}	50	100	200	400	600	800	1000	1300	1500	1600	V
MAXIMUM AVERAGE FORWARD RECTIFIED CURRENT .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}	50										A
TYPICAL THERMAL RESISTANCE (NOTE 2)	$R_{\theta ja}$	50										$^{\circ}C/W$
TYPICAL JUNCTION CAPACITANCE (NOTE 1)	C_J	15										PF
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	GP10-005R	GP10-01R	GP10-02R	GP10-04R	GP10-06R	GP10-08R	GP10-10R	GP10-13R	GP10-15R	GP10-16R	UNITS
MAXIMUM FORWARD VOLTAGE AT I_O DC	V_F	1.1										V
MAXIMUM REVERSE CURRENT AT 25°C	I_R	5										μA
MAXIMUM REVERSE CURRENT AT 100°C	I_R	50										μA

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

2. BOTH LEADS ATTACHED TO HEATSINK 20x 20x 1t(mm) COPPER PLATE AT LEAD LENGTH 5mm

RATINGS AND CHARACTERISTIC CURVE GP10-005R THRU GP10-16R

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

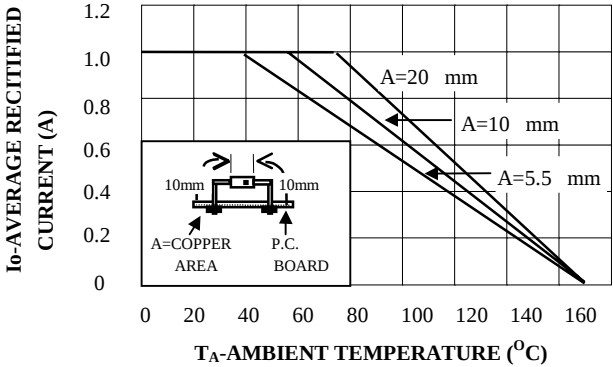


Fig. 2-MAXIMUM CURRENT RATING
CAPACITIVE LOAD, 10 mm LEAD LENGTHS

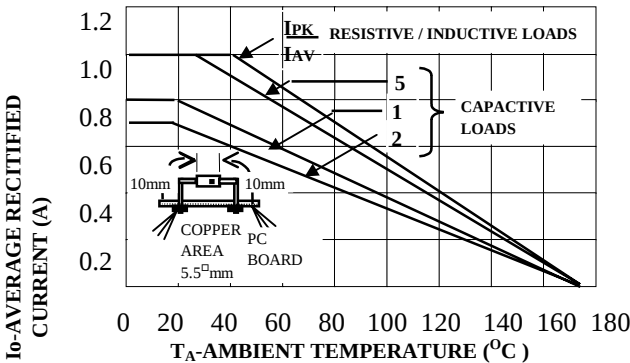


Fig. 3 MAXIMUM CURRENT RATING
EFFECT OF LEAD LENGTHS
RESISTIVE / INDUCTIVE LOAD

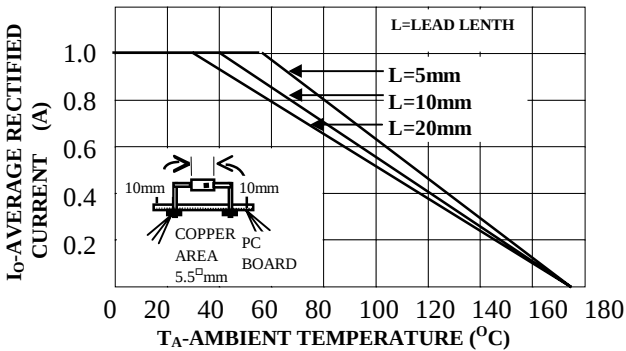


Fig. 4-TYPICAL FORWARD CHARACTERISTICS

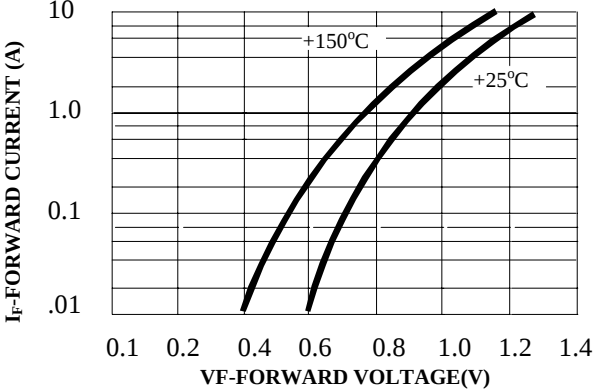


Fig. 5-MAXIMUM FORWARD SURGE
VS NUMBER OF CYCLES

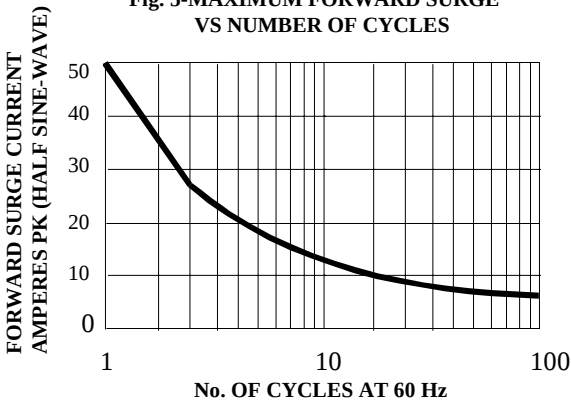


Fig. 6-TYPICAL REVERSE
CHARACTERISTIC

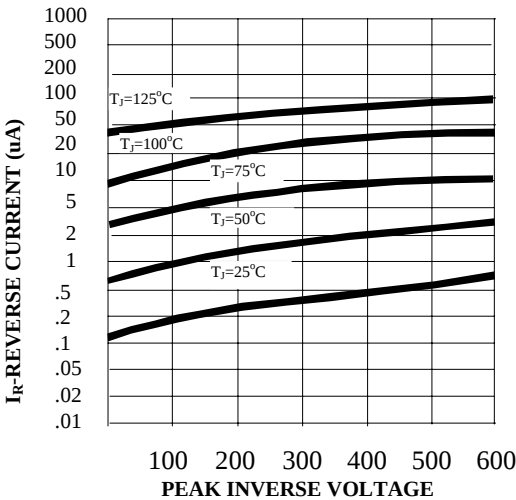


Fig. 7-TYPICAL JUNCTION CAPACITANCE

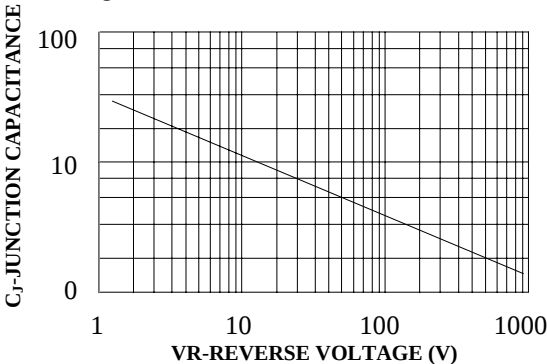


Fig. 8-FORWARD PULSE CURRENT
VS PULSE DURATION

