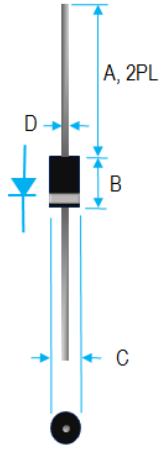
GP50-005 THRU GP50-10 SPECIFICATIONS

Rev. A

5A GENERAL PURPOSE RECTIFIER



Dim.	Value Inch[mm]	
	Min.	Max.
A	1.000[25.40]	---
B	0.335[8.51]	0.375[9.52]
C	0.197[5.00]	0.220[5.59]
D	0.048[1.22]	0.052[1.32]

PRODUCT FEATURES

1. FLAMMABILITY CLASSIFICATION: 94V-0
2. HIGH SURGE CURRENT CAPABILITY
3. CASE: TRANSFER MOLDED, DO-201AD
4. DIMENSIONS IN INCHES AND (MILLIMETERS)
5. POLARITY: INDICATED BY CATHODE BAND
6. WEIGHT: 1.2 GRAMS
7. LEADS: SOLDERABILITY PER MIL-STD-202 METHOD 208
8. RoHS

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS RATINGS AT 25°C AMBIENT TEMPERATURE UNLESS OTHERWISE SPECIFIED STORAGE AND OPERATING TEMPERATURE RANGE -55°C TO +125°C. SINGLE PHASE, HALF WAVE, 60 HZ, RESISTIVE OR INDUCTIVE LOAD. FOR CAPACITIVE LOAD, DERATE CURRENT BY 20%.

RATINGS	SYMBOL	VALUE	UNITS
MAXIMUM AVERAGE FORWARD RECTIFIED CURRENT, 0.375"(9.5mm) LEAD LENGTH @ 55°C	I_O	5	A
PEAK FWD SURGE CURRENT, 8.3ms HALF SINE-WAVE SUPERIMPOSED ON RATED LOAD	I_{FSM}	200	A
TYPICAL JUNCTION CAPACITANCE(NOTE1)	C_J	30	pF
TYPICAL THERMAL RESISTANCE (NOTE 2)	$R_{\theta jc}$	20	°C/W
MAXIMUM FORWARD VOLTAGE	V_F	1.1	V
MAXIMUM REVERSE CURRENT @ 25°C	I_R	5	uA
MAXIMUM REVERSE CURRENT @ 100°C	I_R	100	uA

1. MEASURED @ 1.0 MHZ AND APPLIED REVERSE VOLTAGE OF 4.0 V
2. BOTH LEADS ATTACHED TO HEAT SINK 63.5×63.5×1T (mm) COPPER PLATE AT LEAD LENGTH 5mm
3. MAXIMUM FORWARD VOLTAGE AT I_o DC

PART NUMBER	MAX RECURRENT PK REV VOLTAGE V_{RRM} (V)	MAX RMS VOLTAGE V_{RMS} (V)	MAX DC BLOCKING VOLTAGE V_{DC} (V)
GP50-005	50	35	50
GP50-01	100	70	100
GP50-02	200	140	200
GP50-04	400	280	400
GP50-06	600	420	600
GP50-08	800	560	800
GP50-10	1000	700	1000

RATING AND CHARACTERISTIC CURVES

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

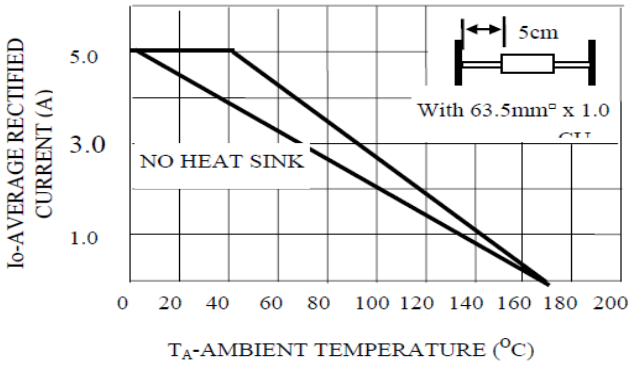


Fig. 2-MAXIMUM FORWARD SURGE
NUMBER OF CYCLES

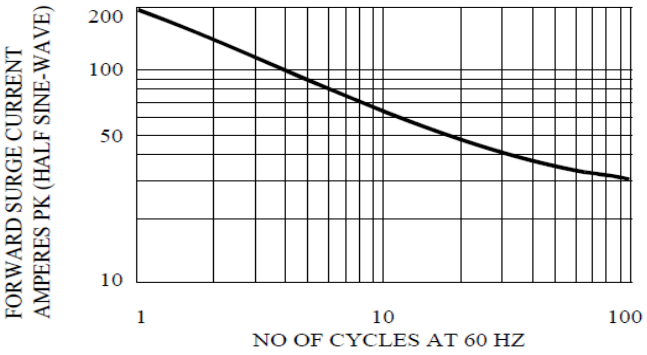


Fig. 3-MAXIMUM CURRENT RATING
EFFECT OF COPPER AREA.
RESISTIVE/INDUCTIVE LOAD.

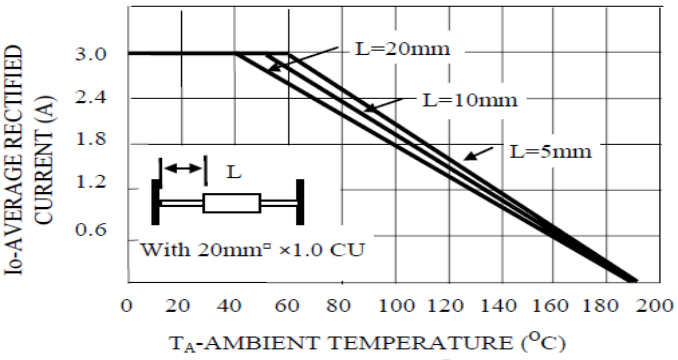


Fig. 4-TYPICAL JUNCTION CAPACITANCE

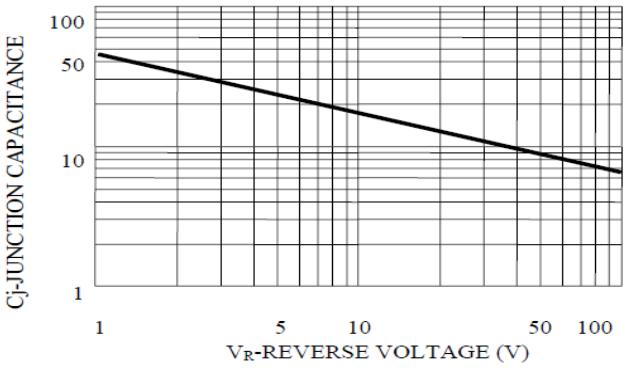


Fig. 5-TYPICAL FORWARD CHARACTERISTICS

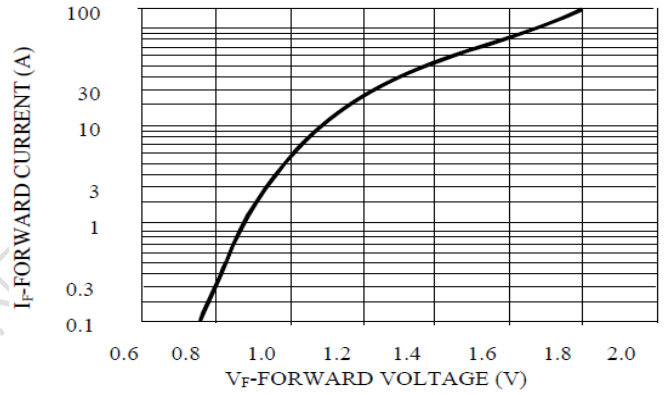


Fig. 6-FORWARD PULSE CURRENT, PULSE