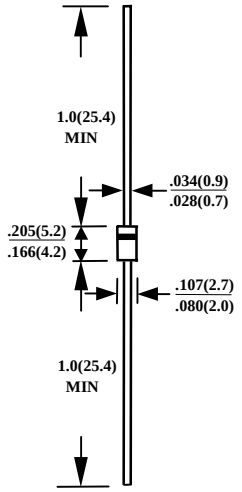
FRONTIER
ELECTRONICS CO., LTD.

GP05-10 THRU GP05-20

HIGH VOLTAGE SILICON RECTIFIER

FEATURES
- AVALANCHE OPERATION
- UL 94V0 FLAME RETARDANT EPOXY MOLDING COMPOND
- BEVELED ROUND CHIP
- LOW COST

MECHANICAL DATA
- CASE：TRANSFER MOLDED
- LEADS：SOLDERABLE PER MIL-STD-202,METHOD 208
- POLARITY：CATHODE INDICATED BY COLOR BAND
- WEIGHT：0.34 GRAMS (DO-41)



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	GP05-10	GP05-15	GP05-18	GP05-20	UNITS
MAXIMUM RECURRENT PEAK REVERSE VOLTAGE	V_{RRM}	1000	1500	1800	2000	V
MAXIMUM RMS VOLTAGE	V_{RMS}	700	1050	1260	1400	V
MAXIMUM DC BLOCKING VOLTAGE	V_{DC}	1000	1500	1800	2000	V
MAXIMUM AVERAGE FORWARD RECTIFIED CURRENT .375″ (9.5mm) LEAD LENGTH AT TA=55°C	I_O	0.5				A
PEAK FORWARD SURGE CURRENT, 8.3ms SINGLE HALF SINE-WAVE SUPERIMPOSED ON RATED LOAD	I_{FSM}	30				A
TYPICAL JUNCTION CAPACITANCE MEASURED AT 1MHZ AND APPLIED REVERSE VOLTAGE AT 4.0 VOLTAS(NOTE1)	C_J	9				PF
TYPICAL THERMAL RESISTANCE (NOTE 2)	$R_{\theta ja}$	50				℃/W
STORAGE TEMPERATURE RANGE	T_{STG}	- 55 TO + 150				℃
OPERATING TEMPERATURE RANGE	T_{OP}	- 55 TO + 150				℃

ELECTRICAL CHARACTERISTICS (A_T T_A =25°C UNLESS OTHERWISE NOTED)

CHARACTERISTICS	SYMBOL	GP05-10	GP05-15	GP05-18	GP05-20	UNITS
MAXIMUM FORWARD VOLTAGE AT I_O DC	V_F	2.0				V
MAXIMUM REVERSE CURRENT AT 25℃	I_R	5.0				μA
MAXIMUM REVERSE CURRENT AT 100℃	I_R	50.0				μA

NOTE：

1. MEASURED AT 1MHZ AND APPLIED REVERSE VOLTAGE OF 4.0 VOLTS
2. BOTH LEADS ATTATCHED TO HEATSINK 20× 20× 1t(mm) COPPER PLATE AT LEAD LENTH 5mm

RATINGS AND CHARACTERISTICS CURVES GP05-10 THRU GP05-20

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

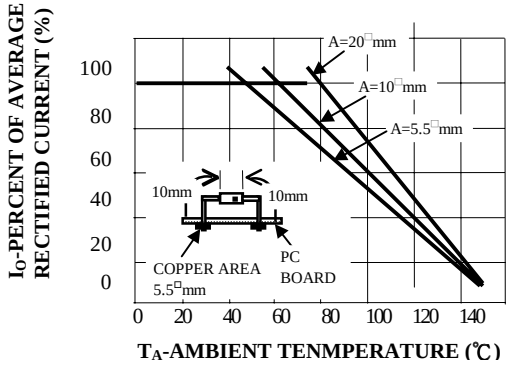


FIG. 2-MAXIMUM CURRENT RATING CAPACITIVE LOAD, 10mm LEAD LENGTHS

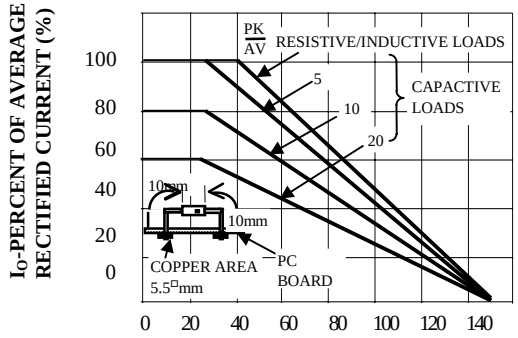


FIG. 3-MAXIMUM CURRENT RATING EFFECT OF COPPER AREA. RESISTIVE/INDUCTIVE LOAD

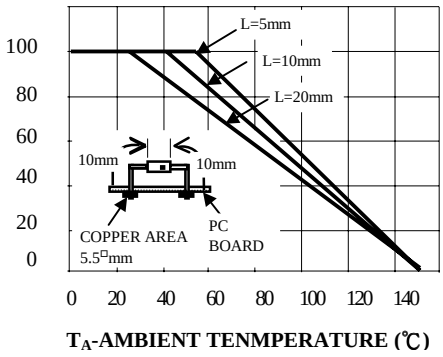


FIG. 4-TYPICAL REVERSE CHARCTERISTICS AT T_J=25℃

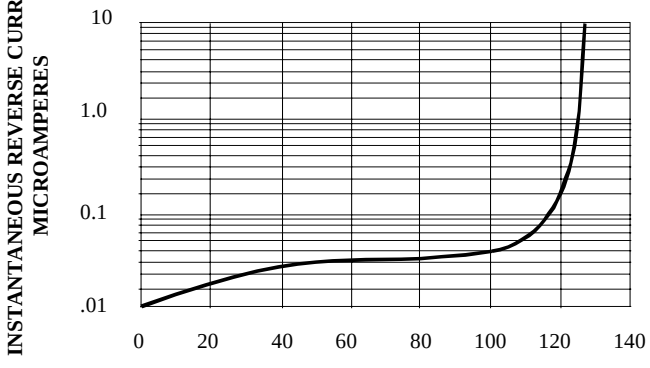


FIG. 5-MAXIMUM FORWARD SURGE VS NUMBER OF CYCLES

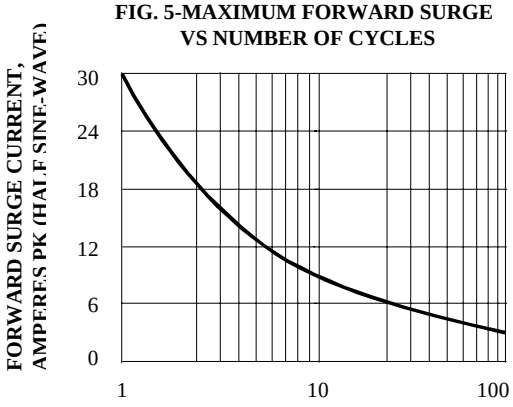


FIG. 6-TYPICAL JUNCTION CAPACITANCE

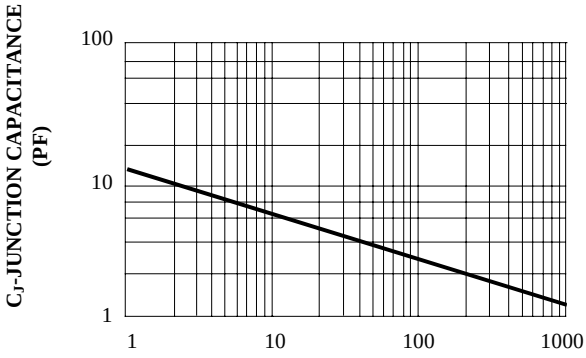


FIG. 7 TYPICAL FORWARD CHARACTERISTICS