



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>

HIGH VOLTAGE SILICON RECTIFIER

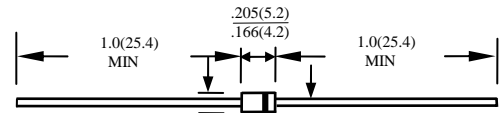
GP02-25-LFR THRU GP02-60-LFR

FEATURES

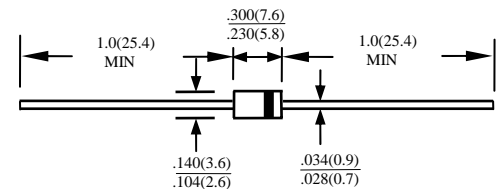
- AVALANCHE OPERATION
- UL 94V0 FLAME RETARDANT EPOXY MOLDING COMPOUND
- BEVELED ROUND CHIP
- LOW COST
- ROHS

MECHANICAL DATA

- CASE: TRANSFER MOLDED, DIMENSIONS IN INCHES AND (MILLIMETERS)
- LEADS: SOLDERABLE PER MIL-STD-202, METHOD 208
- POLARITY: CATHODE INDICATED BY COLOR BAND
- WEIGHT: 0.34 GRAMS (DO-41)
0.40 GRAMS (DO-15)



CASE: DO41
GP02-25-LFR~GP02-30-LFR



CASE: DO15
GP02-35-LFR~GP02-60-LFR

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	GP02-25 -LFR	GP02-30 -LFR	GP02-35 -LFR	GP02-40 -LFR	GP02-50 -LFR	GP02-60 -LFR	UNITS
MAXIMUM RECURRENT PEAK REVERSE VOLTAGE	V _{RRM}	2500	3000	3500	4000	5000	6000	V
MAXIMUM RMS VOLTAGE	V _{RMS}	1750	2100	2450	2800	3500	4200	V
MAXIMUM DC BLOCKING VOLTAGE	V _{DC}	2500	3000	3500	4000	5000	6000	V
MAXIMUM AVERAGE FORWARD RECTIFIED CURRENT 0.375" (9.5mm) LEAD LENGTH AT TA=55°C	I _O	0.2						A
PEAK FORWARD SURGE CURRENT, 8.3ms SINGLE HALF SINE-WAVE SUPERIMPOSED ON RATED LOAD	I _{FSM}	25				20		A
TYPICAL JUNCTION CAPACITANCE MEASURED AT 1MHZ AND APPLIED REVERSE VOLTAGE AT 4.0 VOLTS	C _J	7				5		PF
TYPICAL THERMAL RESISTANCE (NOTE 1)	R _{θja}	50						°C/W
STORAGE TEMPERATURE RANGE	T _{STG}	- 55 TO + 150						°C
OPERATING TEMPERATURE RANGE	T _{OP}	- 55 TO + 125						°C

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

CHARACTERISTICS	SYMBOL	GP02-25 -LFR	GP02-30 -LFR	GP02-35 -LFR	GP02-40 -LFR	GP02-50 -LFR	GP02-60 -LFR	UNITS
MAXIMUM FORWARD VOLTAGE AT I _O DC	V _F	3.0		5.0		7.0		V
MAXIMUM REVERSE CURRENT AT 25°C	I _R	5						μA
MAXIMUM REVERSE CURRENT AT 100°C	I _R	50						μA

NOTE: 1. BOTH LEADS ATTACHED TO HEAT SINK 20×20×11(mm) COPPER PLATE AT LEAD LENGTH 5mm

RATINGS AND CHARACTERISTICS CURVES GP02-25-LFR THRU GP02-60-LFR

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

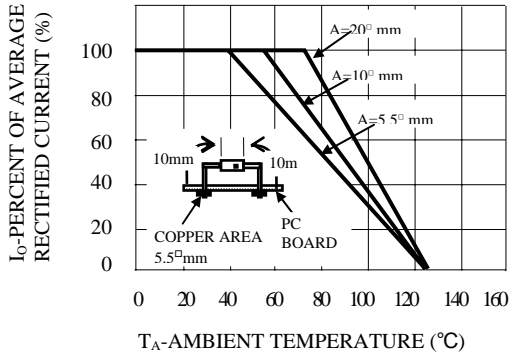


FIG. 2 MAXIMUM CURRENT RATING
CAPACITIVE LOAD,
10mm LEAD LENGTHS

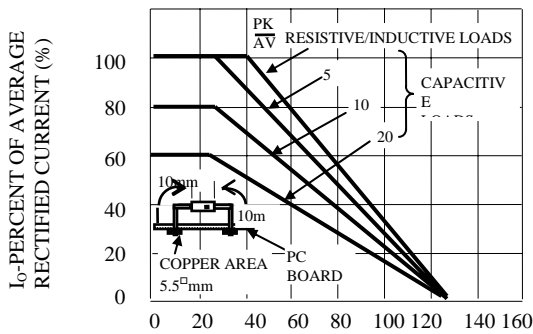


FIG. 3 MAXIMUM CURRENT RATING
EFFECT OF COPPER AREA.
RESISTIVE/INDUCTIVE LOAD

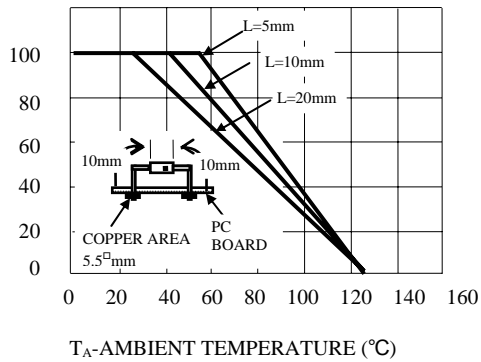


FIG. 4 TYPICAL REVERSE CHARACTERISTICS
AT $T_J=25^{\circ}C$

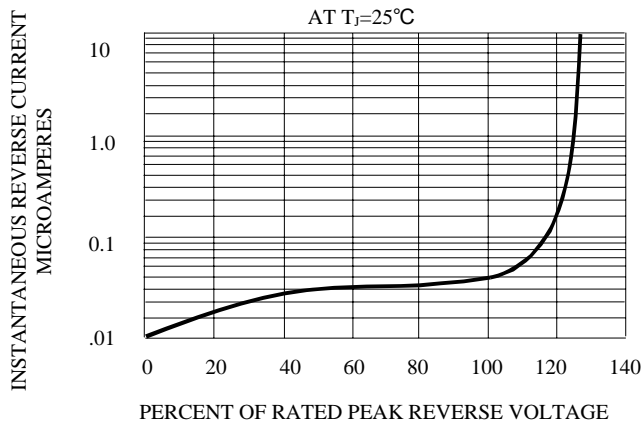


FIG. 5 MAXIMUM FORWARD SURGE
VS NUMBER OF CYCLES

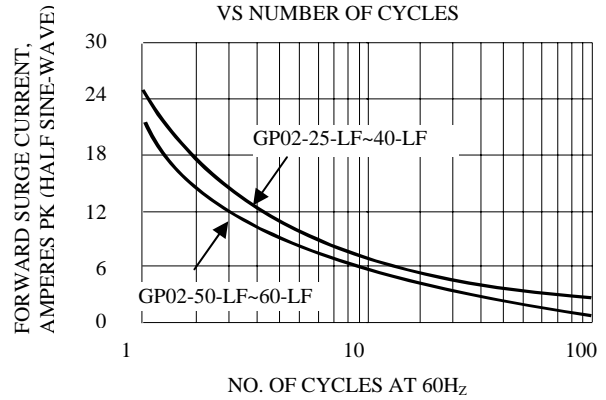


FIG. 6 TYPICAL JUNCTION CAPACITANCE

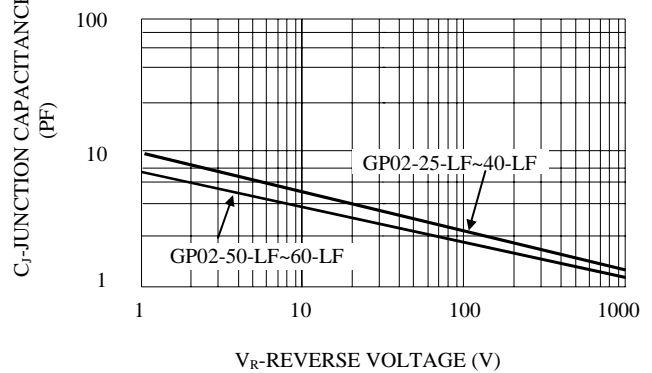


FIG. 7 TYPICAL FORWARD CHARACTERISTICS

