



**THE DATASHEET OF
FRA807G-BP**





Micro Commercial Components



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FRA801G THRU FRA807G

8 Amp Glass Passivated Fast Recovery Rectifier 50 to 1000 Volts

Features

- High Reliability
- High Surge Current Capability
- Lead Free Finish/RoHS Compliant(Note 1) ("P" Suffix designates RoHS Compliant. See ordering information)
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0 and MSL Rating 1
- Marking : Type number
- Halogen free available upon request by adding suffix "-HF"

Maximum Ratings

- Mounting Torque: 5 in-lbs Maximum
- Operating Temperature: -55°C to +150°C
- Storage Temperature: -55°C to +150°C
- Typical Thermal Resistance: 3.0 °C/W junction to case

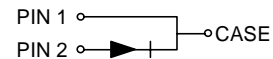
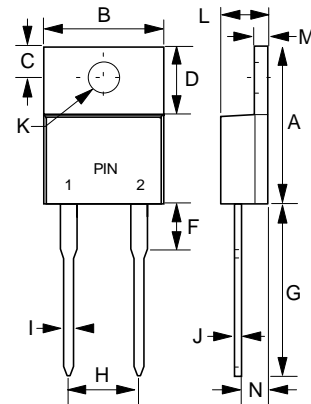
MCC Part Number	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
FRA801G	50V	35V	50V
FRA802G	100V	70V	100V
FRA803G	200V	140V	200V
FRA804G	400V	280V	400V
FRA805G	600V	420V	600V
FRA806G	800V	560V	800V
FRA807G	1000V	700V	1000V

Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	8 A	$T_C = 100^\circ\text{C}$
Peak Forward Surge Current	I_{FSM}	150A	8.3ms, half sine
Maximum Instantaneous Forward Voltage	V_F	1.3V	$I_{FM} = 8.0A$
Maximum DC Reverse Current At Rated DC Blocking Voltage	I_R	5.0µA 100µA	$T_A = 25^\circ\text{C}$ $T_A = 125^\circ\text{C}$
Maximum Reverse Recovery Time FRA801G-804G FRA805G FRA806G-807G	T_{rr}	150ns 250ns 500ns	$I_F=0.5A,$ $I_R=1.0A,$ $I_{RR}=0.25A$
Typical Junction Capacitance	C_J	60pF	Measured at 1.0MHz, $V_R=4.0V$

Notes: 1. High Temperature Solder Exemption Applied, see EU Directive Annex 7.

TO-220AC



DIMENSIONS

DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.560	.625	14.22	15.88	
B	.380	.420	9.65	10.67	
C	.100	.135	2.54	3.43	
D	.230	.270	5.84	6.86	
F	-----	.250	-----	6.35	
G	.500	.580	12.70	14.73	
H	.190	.210	4.83	5.33	
I	.020	.045	0.51	1.14	
J	.012	.025	0.30	0.64	
K	.139	.161	3.53	4.09	∅
L	.140	.190	3.56	4.83	
M	.045	.055	1.14	1.40	
N	.080	.115	2.03	2.92	

FRA801G thru FRA807G

FIG.1- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

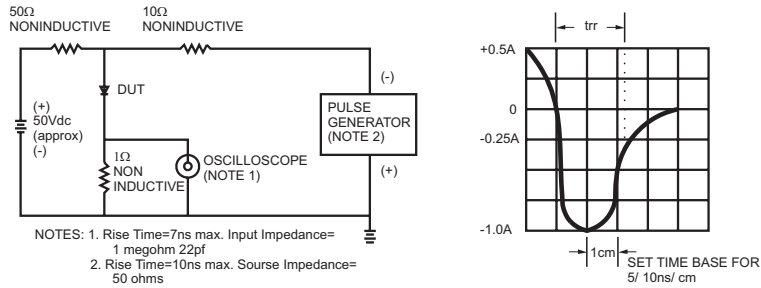


FIG.2- MAXIMUM FORWARD CURRENT DERATING CURVE

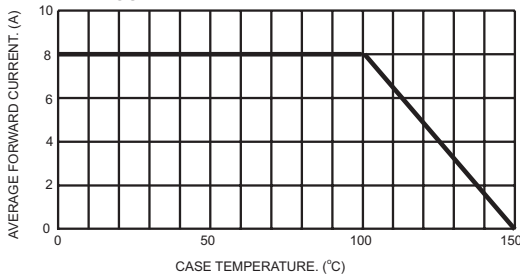


FIG.5- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

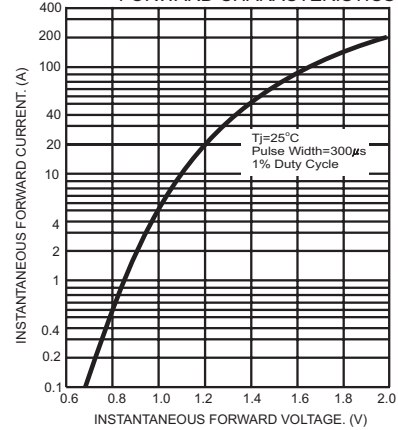


FIG.3- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

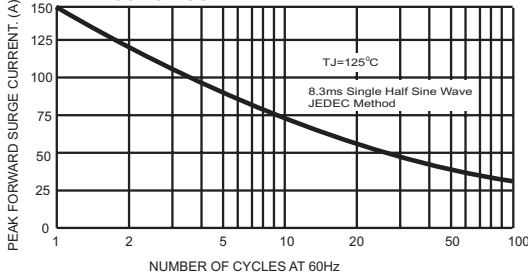


FIG.6- TYPICAL REVERSE CHARACTERISTICS

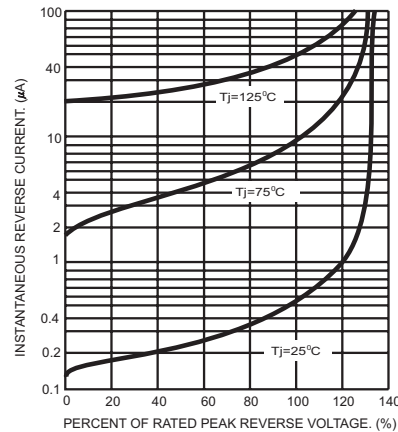
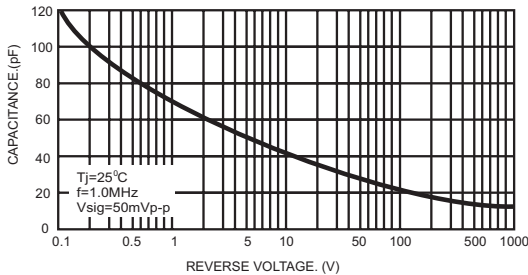


FIG.4- TYPICAL JUNCTION CAPACITANCE





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Ordering Information

Device	Packing
(Part Number)-BP	Bulk;1Kpcs/Box

Note : Adding "-HF" suffix for halogen free, eg. Part Number-BP-HF

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