



Micro Commercial Components

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# RA501GP THRU RA507GP

## 50.0 Amp High Current Glass Passivated Rectifier 50 to 1000 Volts

### Features

- Lead Free Finish/RoHS Compliant(Note 1) ("P" Suffix designates RoHS Compliant. See ordering information)
- Case Material: Molded Plastic. UL Flammability Classification 94V-0 and MSL Rating 1
- Low Cost Construction Utilizing Void-free Molded Plastic Technique
- High Surge Capability, Glass Passivated Chip
- Diffused Junction

### Maximum Ratings

- Operating & Storage Temperature: -55°C to +150°C
- For Capacitive Load, Derate Current by 20%

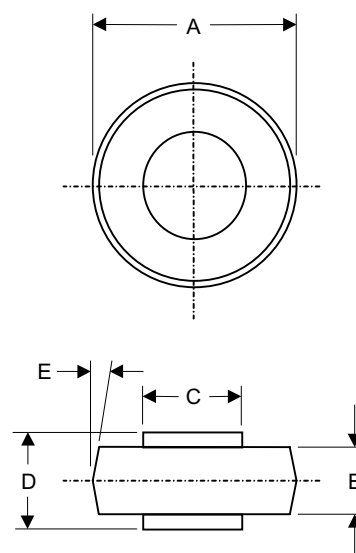
MCC Part Number	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
RA501GP	50V	35V	50V
RA502GP	100V	70V	100V
RA503GP	200V	140V	200V
RA504GP	400V	280V	400V
RA505GP	600V	420V	600V
RA506GP	800V	560V	800V
RA507GP	1000V	700V	1000V

### Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	50.0A	$T_C=125^\circ\text{C}$
Peak Forward Surge Current	$I_{FSM}$	500A	8.3ms half sine
Maximum Instantaneous Forward Voltage	$V_F$	1.1V	$I_{FM}=50.0A$ $T_A=25^\circ\text{C}$
Maximum DC Reverse Current At Rated DC Blocking Voltage	$I_R$	5.0uA	$T_C=25^\circ\text{C}$
Typical Reverse Recovery Times	$t_{rr}$	3.0us	$I_F=0.5A,$ $I_R=1.0A,$ $I_{rr}=0.25A$
Typical Junction Capacitance	$C_j$	300pF	Measured at 1.0MHz, $V_R=4.0V$

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

## RA



DIM	DIMENSION				NOTE
	INCHES		MM		
	MIN	MAX	MIN	MAX	
A	.380	.410	9.70	10.40	
B	.165	.185	4.19	4.70	
C	.215	.225	5.50	5.70	
D	.235	.250	6.00	6.40	
E	----	5°	----	5°	NOM

# RA501GP thru RA507GP

## RATINGS AND CHARACTERISTIC CURVES

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

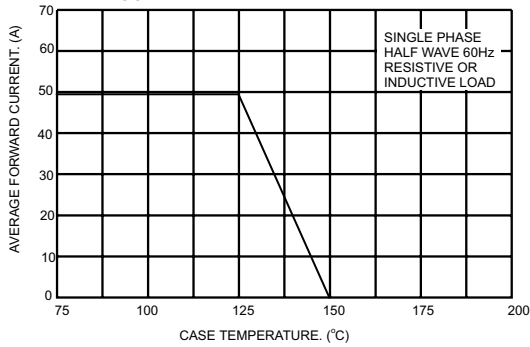


FIG.2- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

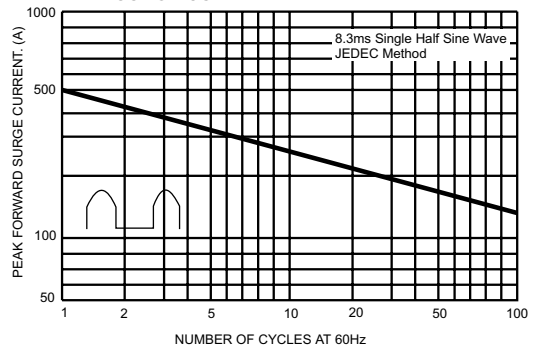


FIG.3- TYPICAL FORWARD CHARACTERISTICS

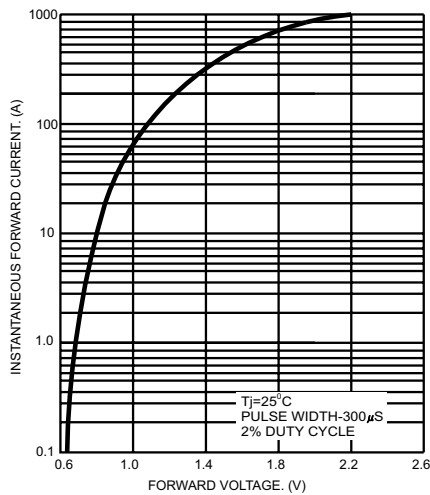


FIG.4- TYPICAL REVERSE CHARACTERISTICS

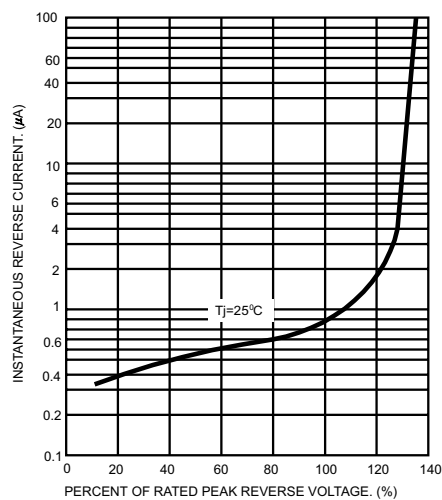
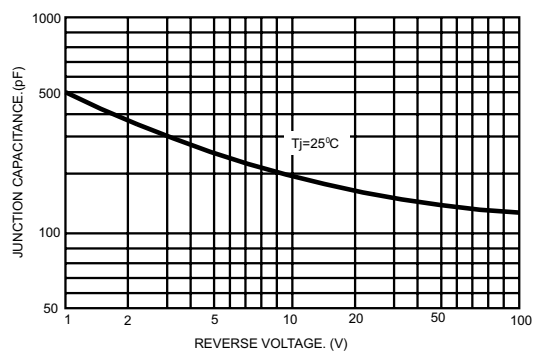


FIG.5- TYPICAL JUNCTION CAPACITANCE





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## Ordering Information

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

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