



Micro Commercial Components

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RA501 THRU RA507

50.0 Amp Standard 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
- Diffused Junction

Maximum Ratings

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

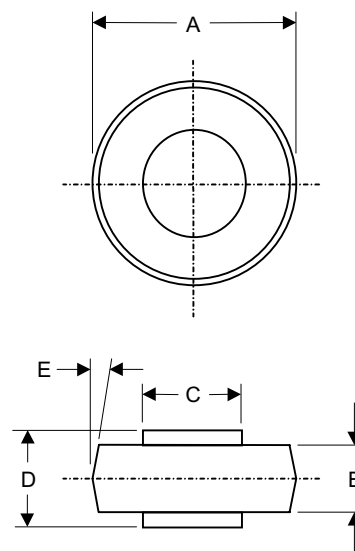
MCC Part Number	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
RA501	50V	35V	50V
RA502	100V	70V	100V
RA503	200V	140V	200V
RA504	400V	280V	400V
RA505	600V	420V	600V
RA506	800V	560V	800V
RA507	1000V	700V	1000V

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

RA501 thru RA507

RATINGS AND CHARACTERISTIC CURVES

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

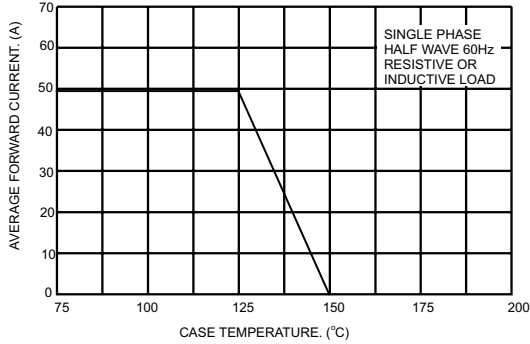


FIG.2- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

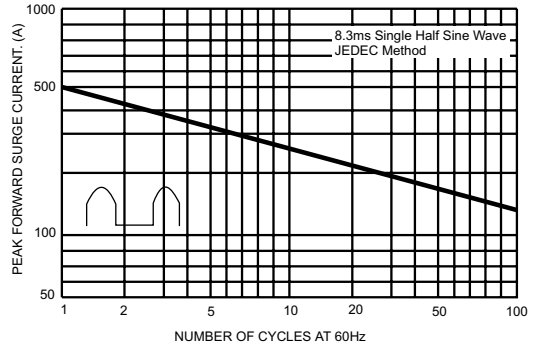


FIG.3- TYPICAL FORWARD CHARACTERISTICS

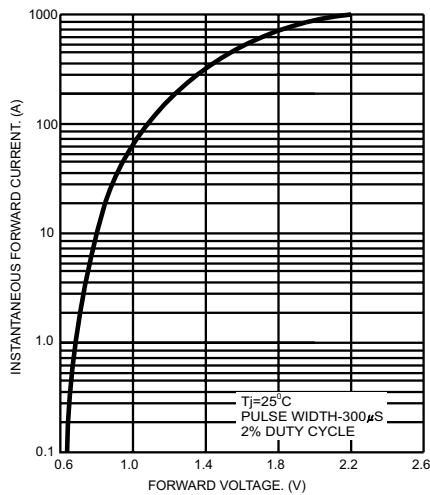


FIG.4- TYPICAL REVERSE CHARACTERISTICS

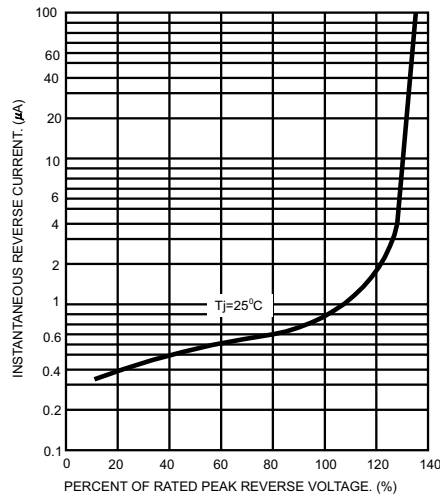
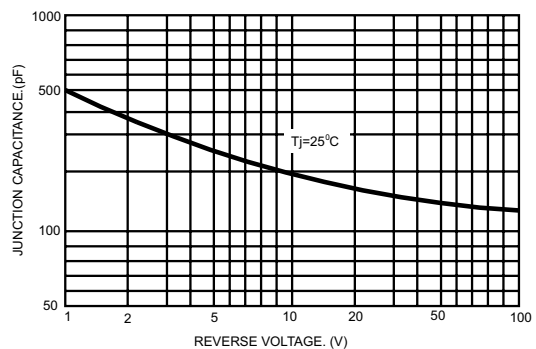


FIG.5- TYPICAL JUNCTION CAPACITANCE





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Ordering Information

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

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