



Micro Commercial Components  
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# RA501 THRU RA507

**50.0 Amp High  
Current Plastic Silicon  
Rectifier  
50 to 1000 Volts**

## Features

- Plastic Material Used Carriers Underwrites Laboratory Classification 94V-O
- Low Cost Construction Utilizing Void-free Molded Plastic Technique
- High Surge Capability
- Diffused Junction

## Maximum Ratings

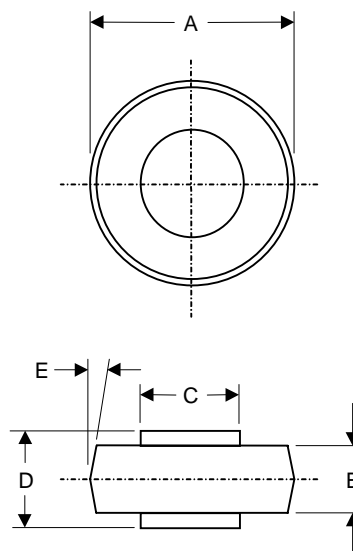
- Operating & Storage Temperature: -55°C to +175°C
- For Capacitive Load, Derate Current by 20%

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	$T_C=135^\circ\text{C}$
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, $V_R=4.0V$

RA



DIMENSION					
DIM	INCHES		MM		NOTE
	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

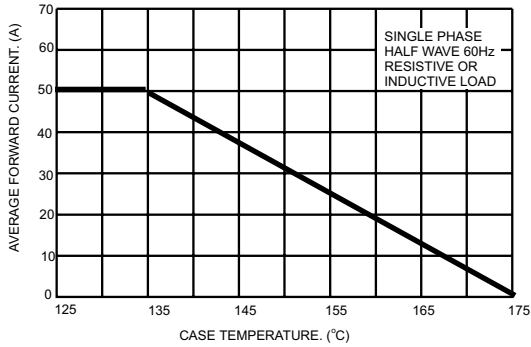


FIG.2- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

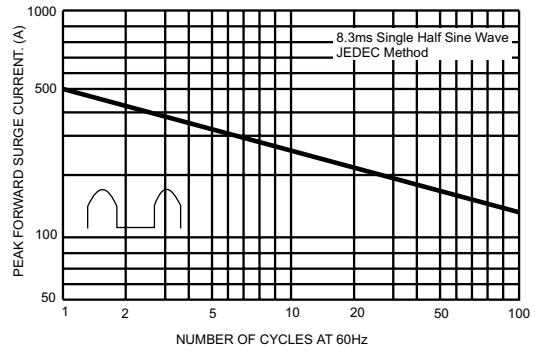


FIG.3- TYPICAL FORWARD CHARACTERISTICS

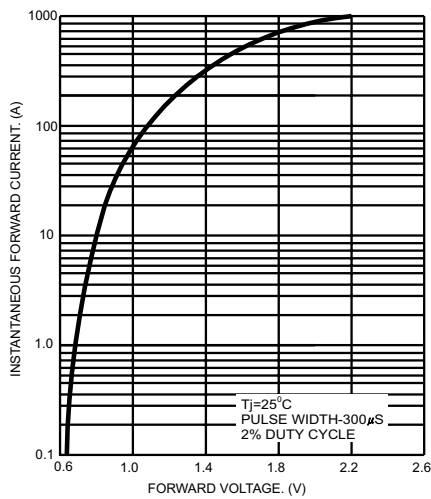


FIG.4- TYPICAL REVERSE CHARACTERISTICS

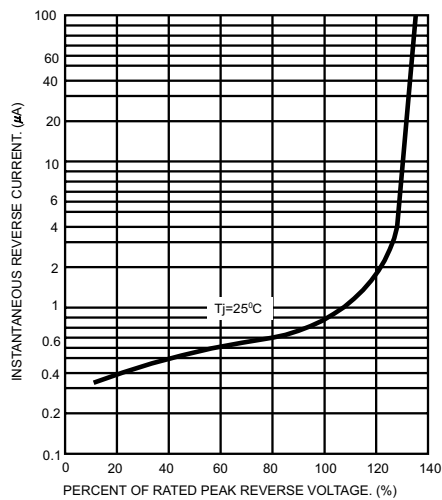


FIG.5- TYPICAL JUNCTION CAPACITANCE

