



**Micro Commercial Components** 



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# **HER501 Thru HER508**

# 5.0 Amp High **Efficient Rectifiers** 50 to 1000 Volts

- Halogen free available upon request by adding suffix "-HF" Lead Free Finish/RoHS Compliant(Note 1) ("P" Suffix designates RoHS Compliant. See ordering information) Low forward voltage drop
- High reliability and High surge current capability
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1

## **Maximum Ratings**

- Operating Temperature: -65°C to +150°C Storage Temperature: -65 $^{\circ}$ C to +150 $^{\circ}$ C
- Typical Thermal Resistance: 30°C/W Junction To Lead

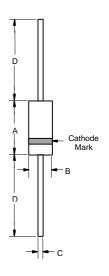
MCC Part	Device	Maximum	Maximum	Maximum
Number	Marking	Recurrent	RMS	DC
		Peak Reverse	Voltage	Blocking
		Voltage		Voltage
HER501	HER501	50V	35V	50V
HER502	HER502	100V	70V	100V
HER503	HER503	200V	140V	200V
HER504	HER504	300V	210V	300V
HER505	HER505	400V	280V	400V
HER506	HER506	600V	420V	600V
HER507	HER507	800V	560V	800V
HER508	HER508	1000V	700V	1000V

### Electrical Characteristics @ 25% Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	5.0A	T <sub>A</sub> = 55°C
Peak Forward Surge Current	I <sub>FSM</sub>	200A	8.3ms, half sine
Maximum Instantaneous Forward Voltage HER501-HER504 HER505 HER506-HER508	$V_{F}$	1.0V 1.3V 1.7V	I <sub>FM</sub> = 5.0A; T <sub>A</sub> = 25°C
Maximum DC Reverse Current At Rated DC Blocking Voltage	I <sub>R</sub>	10uA 200uA	T <sub>A</sub> = 25°C T <sub>A</sub> = 100°C
Maximum Reverse Recovery Time HER501-HER505 HER506-HER508	Trr	50ns 75ns	I <sub>F</sub> =0.5A, I <sub>R</sub> =1.0A I <sub>RR</sub> =0.25A
Typical Junction Capacitance HER501-HER505 HER506-HER508	CJ	100pF 65pF	Measured at 1.0MHz, V <sub>R</sub> =4.0V

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

### **DO-201AD**

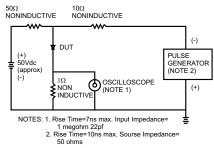


DIMENSIONS							
	INCHES		MM				
DIM	MIN	MAX	MIN	MAX	NOTE		
Α	.287	.374	7.30	9.50			
В	.189	.208	4.80	5.30			
С	.048	.052	1.20	1.30			
D	1 000		25.40				

### HER501 THRU HER508



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



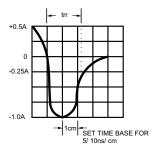


FIG.2- MAXIMUM AVERAGE FORWARD CURRENT DERATING

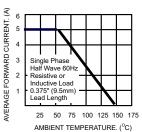
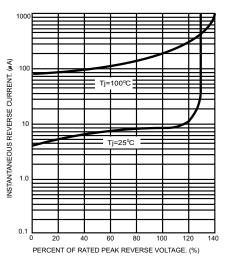
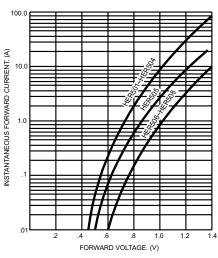


FIG.3- TYPICAL REVERSE CHARACTERISTICS







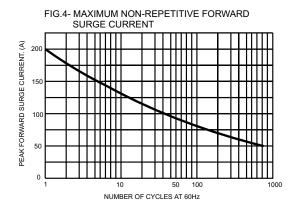
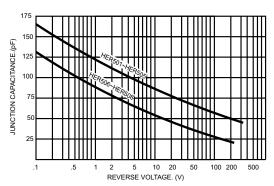


FIG.6- TYPICAL JUNCTION CAPACITANCE





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### **Ordering Information:**

Device	Packing
Part Number-TP	Tape&Reel: 1.2Kpcs/Reel
Part Number-AP	Ammo Packing: 1.2Kpcs/Ammo Box
Part Number-BP	Bulk: 12Kpcs/Carton

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

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