5 A Super Fast Rectifiers

HER501 THRU HER508 50 to 1000 V 5.0 A

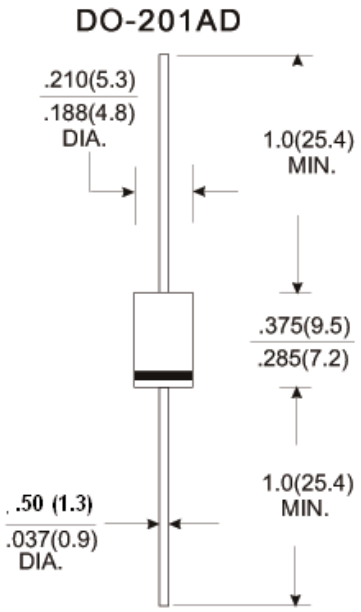
Central Plate Electronics Co., Ltd.

FEATURES

- Low forward voltage drop
- High current capability
- High reliability
- High surge current capability
- High speed switching

MECHANICAL DATA

- Case: Molded plastic
- Epoxy: UL 94V-0 rate flame retardant
- Lead: Axial leads, solder able per MIL-STD-202, method 208 guaranteed
- Polarity: Color band denotes cathode end
- Mounting position: Any
- Weight: 1.2 grams



Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

Rating at 25℃ ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, Resistive or inductive load. For capacitive load, derate current by 20%

Type Number	Symbols	HER 501	HER 502	HER 503	HER 504	HER 505	HER 506	HER 507	HER 508	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	300	400	600	800	1000	Volts
Maximum RMS Voltage	V_{RMS}	35	70	140	210	280	420	560	700	Volts
Maximum DC Blocking Voltage	V_{DC}	50	100	200	300	400	600	800	1000	Volts
Maximum Average Forward Rectified Current. 375" (9.5mm) Lead Length @ T_A =55 ℃	$I_{(AV)}$	5.0								Amp
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	200								Amp
Maximum Instantaneous Forward Voltage @5.0A	V_F	1.0				1.3	1.85			Volts
Maximum Reverse Current @ T_A=25℃ at Rated DC Blocking Voltage @ T_A=100℃	I_R	10 100								uAmp
Maximum Reverse Recovery Time (Note 1)	TRR	50				75				nS
Typical Junction Capacitance (Note2)	C_J	75								pF
Operating Temperature Range	T_J	-55 to +150								℃
Storage Temperature Range	T_{STG}	-55 to +150								℃

NOTES:

1. Reverse Recovery Test Conditions: I_F =0.5A, I_R =1.0A, I_{RR} =0.25A
2. Measured at 1 MHz and Applied Reverse Voltage of 4.0 Volts D.C.

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RATINGS AND CHARACTERISTIC CURVES (HER501 THRU HER508)

FIG.1-TYPICAL FORWARDCHARACTERISTICS

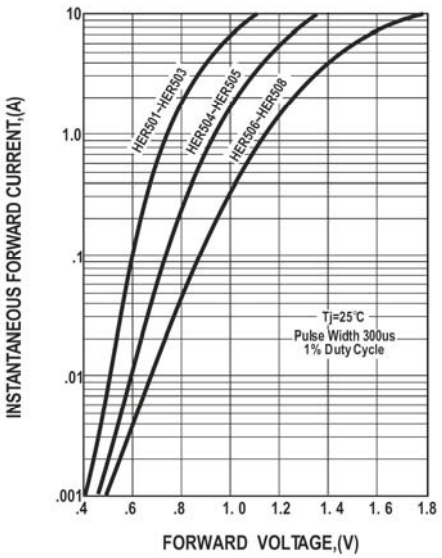


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

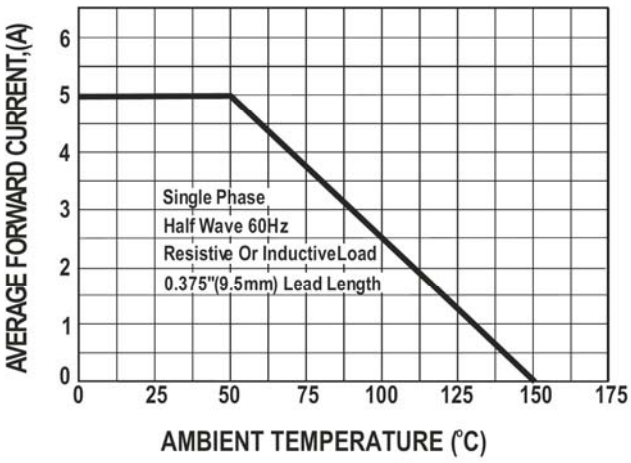
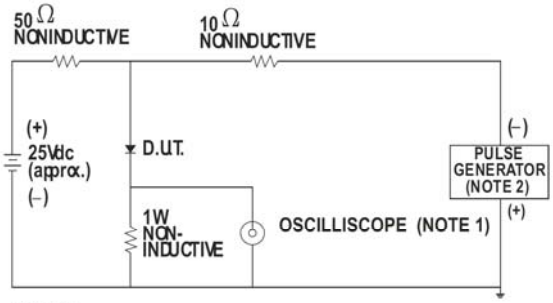
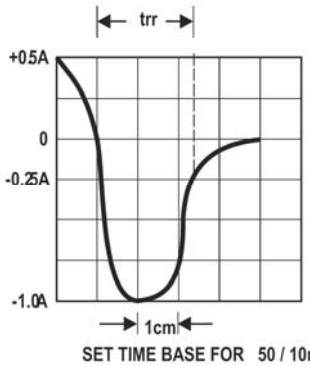


FIG.3- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTICS



NOTES:
1. Rise Time= 7ns max., Input Impedance= 1 megohm.22pF
2. Rise Time= 10ns max., Source Impedance= 50 ohms.



SET TIME BASE FOR 50 / 10ns / cm

FIG.4-MAXIMUM NON-REPETITIVE FORWARDSURGE CURRENT

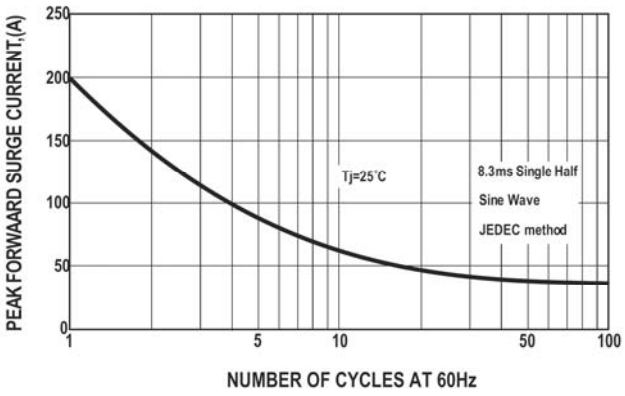


FIG.5-TYPICAL JUNCTION CAPACITANCE