HER301 THRU HER308

HIGH EFFICIENCY RECTIFIER

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HORNBY ELECTRONIC

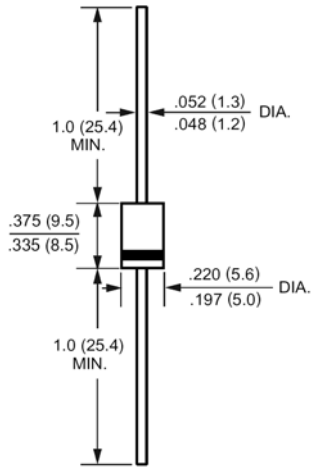
REVERSE VOLTAGE: **50 to 1000 VOLTS**

FORWARD CURRENT: **3.0 AMPERE**

FEATURES

· Plastic package has Underwriters Laboratory Flammability Classification 94V-O ctilizing Flame Retardant Epoxy Molding Compound.
· Void-free Plastic in a DO-201AD package.
· 3.0 ampere operation at T_A=50℃ With no thermal runaway.
· Ultra Fast switching for high efficiency.
· Exceeds environmental standards of MIL-S-19500/228

DO-201AD



Dimensions in inches and (millimeters)

MECHANICAL DATA

Case: Molded plastic, DO-201AD
Terminals: Axial leads, solderable per MIL-STD-202, method 208 guaranteed
Polarity: Band denotes cathode
Mounting position: Any
Weight: 0.04ounce, 1.1gram

Maximum Ratings and Electrical Characteristics

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

	Symbols	*HER301*	*HER302*	*HER303*	*HER304*	*HER305*	*HER306*	*HER307*	*HER308*	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 at T_A=50℃	$I_{(AV)}$	3.0								**Amp**
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	200					150			**Amp**
Maximum Forward Voltage at 3.0A and T_A=25℃	V_F	1.0			1.3		1.7			**Volts**
Maximum Reverse Current at T_J=25℃ at Rated DC Blocking Voltage T_J=100℃	I_R	10.0 100								**uAmp**
Typical Junction Capacitance (Note 1)	C_J	70					50			**pF**
Maximum Reverse Recovery Time (Note 2)	T_{RR}	50					75			**nS**
Typical Thermal Resistance (Note 3)	$R_{\theta JA}$	20								℃/W
Operating and Storage Temperature Range	T_J, Tstg	-55 to +150								℃

NOTES:

1- Measured at 1 MH_Z and applied reverse voltage of 4.0 VDC.
2- Reverse Recovery Test Conditions：I_F=.5A，I_R=1A，I_{RR}=.25A.
3- Thermal Resistance from Junction to Ambient at 0.375"(9.5mm) lead length P.C.B. Mounted.

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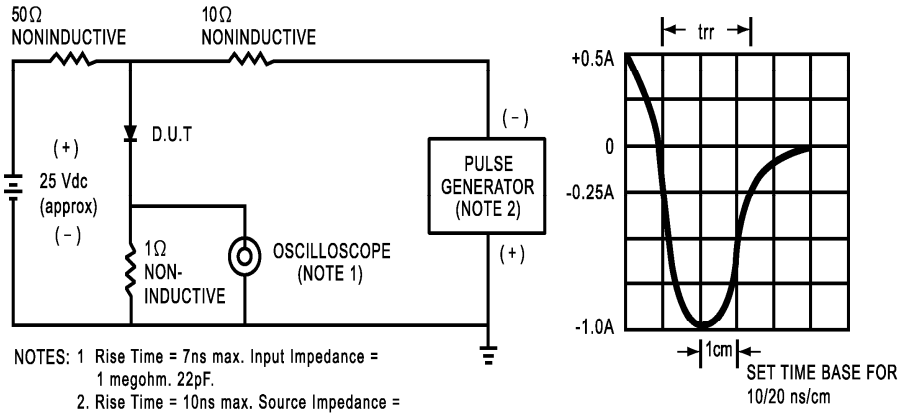
RATINGS AND CHARACTERISTIC CURVES

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



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

FIG. 2 - TYPICAL FORWARD CURRENT DERATING CURVE

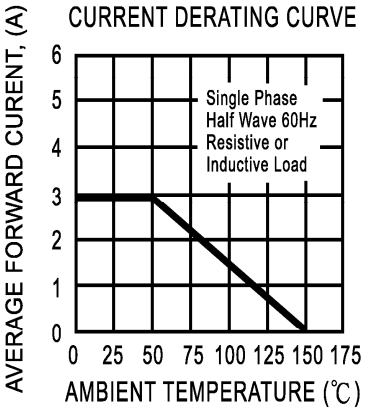


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

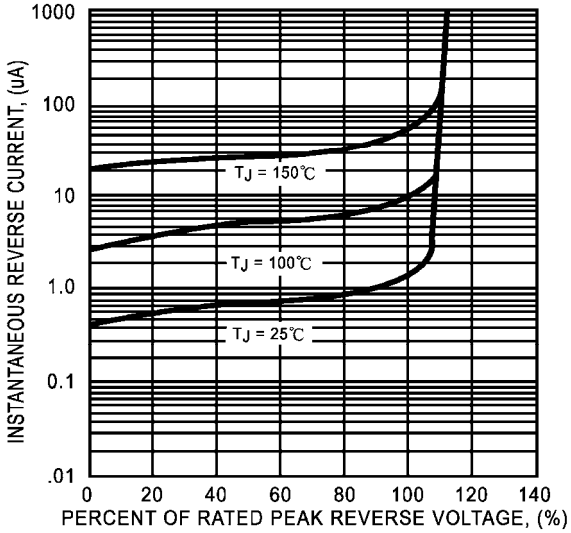


FIG. 4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

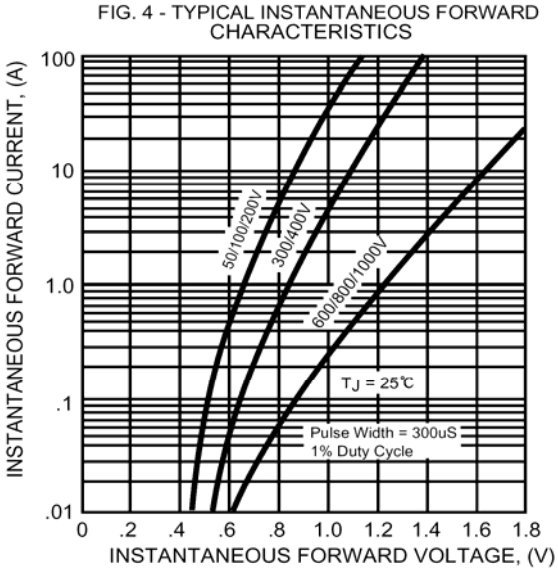


FIG. 5 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

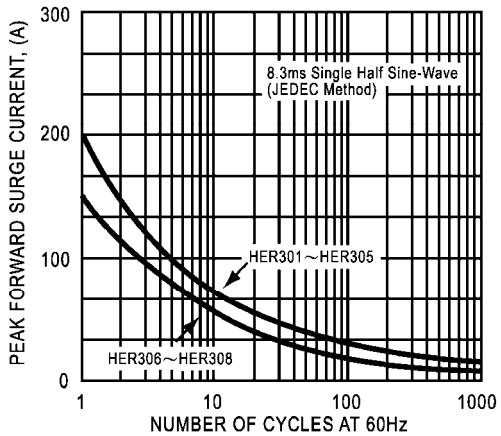


FIG. 6 - TYPICAL JUNCTION CAPACITANCE