HER101 THRU HER108

HIGH EFFICIENCY RECTIFIER

康 比 電 子
HORNBY ELECTRONIC

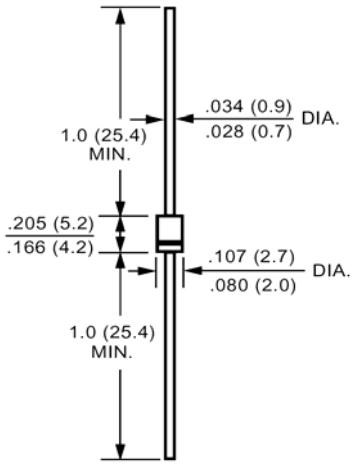
REVERSE VOLTAGE: **50 to 1000 VOLTS**

FORWARD CURRENT: **1.0 AMPERE**

FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O ctilizing Flame Retardant Epoxy Molding Compound.
- Void-free Plastic in a DO-41 package.
- 1.0 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-41



Dimensions in inches and (millimeters)

MECHANICAL DATA

Case: Molded plastic, DO-41

Terminals: Axial leads, solderable per MIL-STD-202, method 208 guaranteed

Polarity: Band denotes cathode

Mounting position: Any

Weight: 0.013ounce, 0.3gram

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	*HER101*	*HER102*	*HER103*	*HER104*	*HER105*	*HER106*	*HER107*	*HER108*	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℃	$I_{(AV)}$	1.0								**Amp**
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	30								**Amp**
Maximum Forward Voltage at 1.0A 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	5.0 50								**uAmp**
Typical Junction Capacitance (Note 1)	C_J	17								**pF**
Maximum Reverse Recovery Time (Note 2)	T_{RR}	50					75			**nS**
Typical Thermal Resistance (Note 3)	$R_{\theta JA}$	60								**℃/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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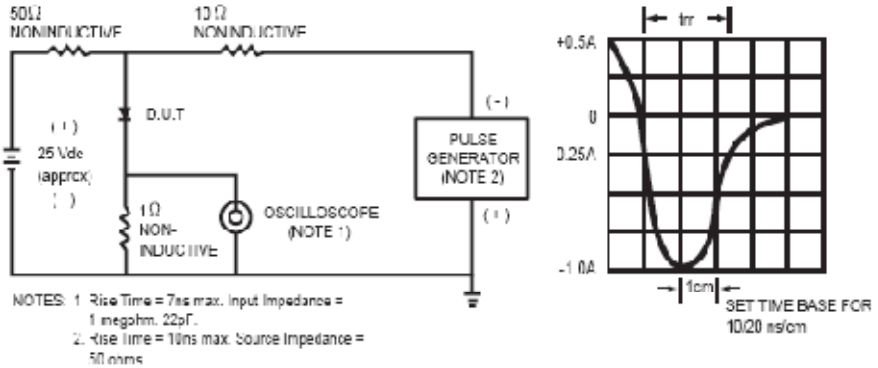
RATINGS AND CHARACTERISTIC CURVES

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

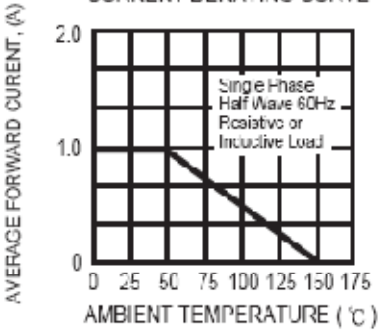


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

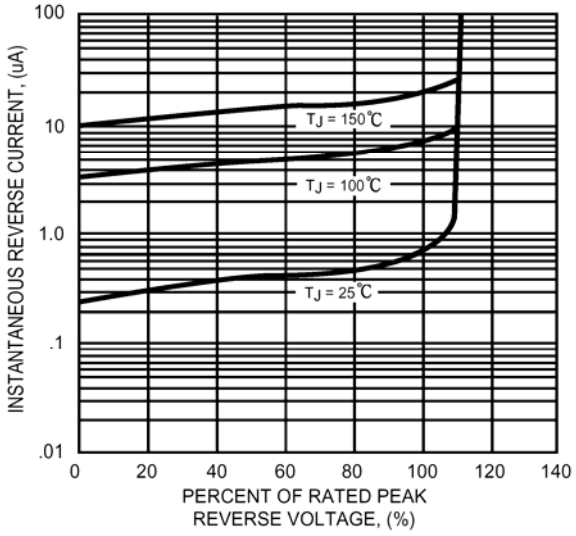


FIG. 4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

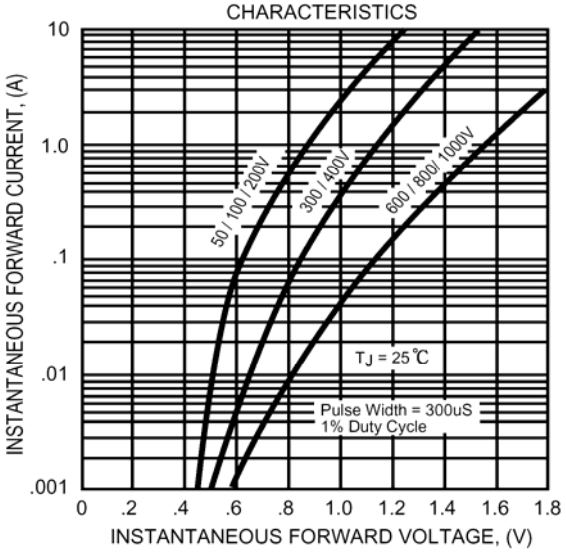


FIG. 5 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

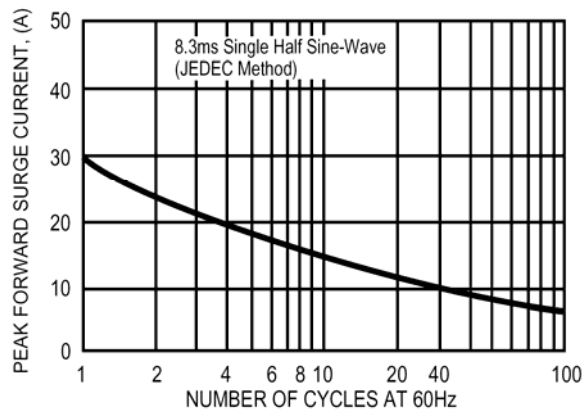


FIG. 6 - TYPICAL JUNCTION CAPACITANCE