HER201 THRU HER208

Ultra Fast Rectifiers

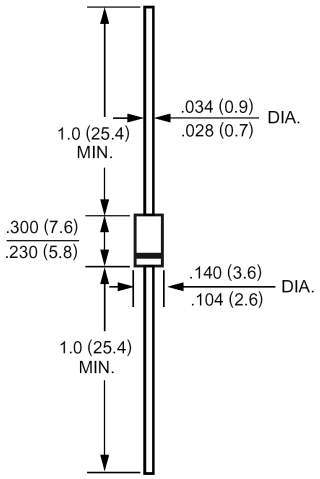
FEATURES

· Plastic package has Underwriters Laboratory Flammability Classification 94V-O ctilizing Flame Retardant Epoxy Molding Compound.
· Void-free Plastic in a DO-15 package.
· 2.0 ampere operation at T_A=55℃ With no thermal runaway.
· Ultra Fast switching for high efficiency.
· Exceeds environmental standards of MIL-S-19500/228

MECHANICAL DATA

Case: Molded plastic, DO-15
Terminals: Axial leads, solderable per MIL-STD-202, method 208 guaranteed
Polarity: Band denotes cathode
Mounting position: Any
Weight: 0.015ounce, 0.4gram

DO-15



Dimensions in inches and (millimeters)

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%.

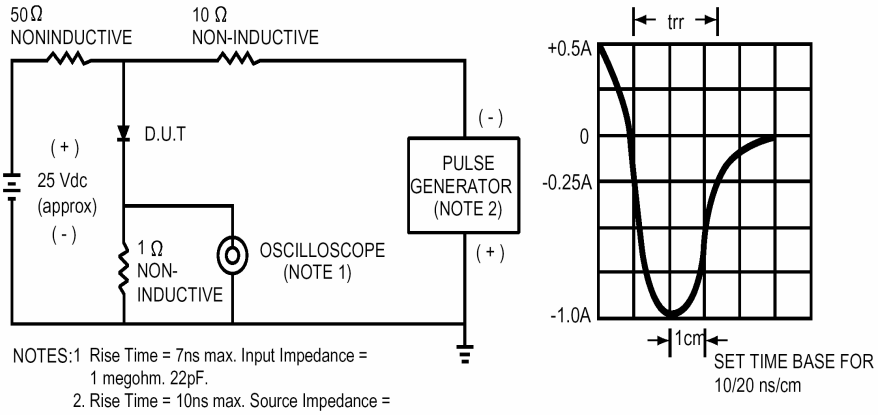
	Symbols	*HER201*	*HER202*	*HER203*	*HER204*	*HER205*	*HER206*	*HER207*	*HER208*	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	300	400	600	800	1000	**Volts**
Maximum RMS Voltage	V_{RMS}	35	70	140	210	280	420	560	700	**Volts**
Maximum DC Blocking Voltage	V_{DC}	50	100	200	300	400	600	800	1000	**Volts**
Maximum Average Forward Rectified Current .375"(9.5mm) Lead Length at T_A=55℃	$I_{(AV)}$	2.0								**Amp**
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	60								**Amp**
Maximum Forward Voltage at 2.0A 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	5.0 500								**uAmp**
Typical Junction Capacitance (Note 1)	C_J	35								**pF**
Maximum Reverse Recovery Time (Note 2)	T_{RR}	50					75			**nS**
Typical Thermal Resistance (Note 3)	$R_{\theta JA}$	45								**℃/W**
Operating and Storage Temperature Range	T_J, Tstg	-55 to +125								**℃**

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.

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

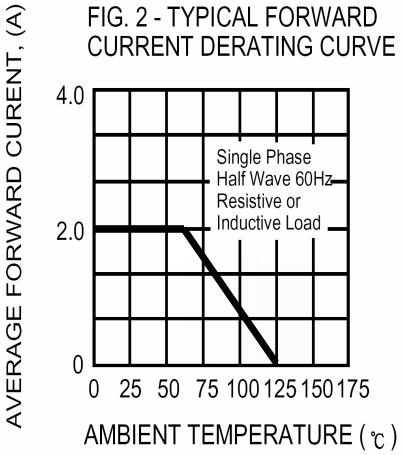


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

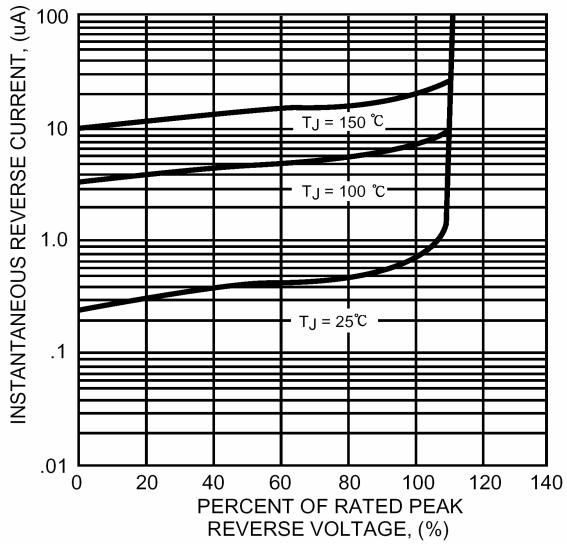


FIG. 4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

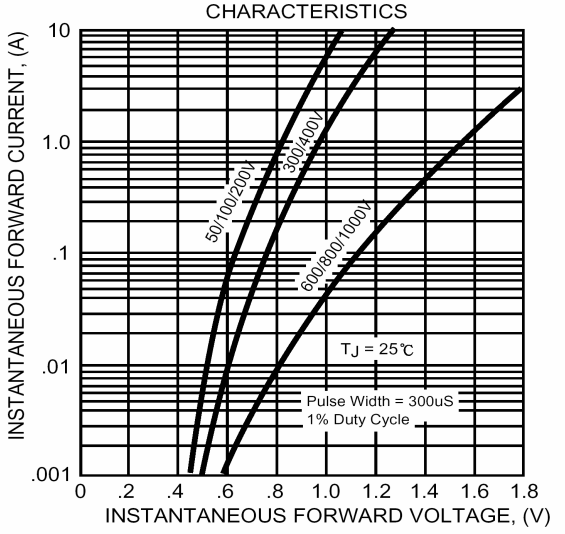


FIG. 5 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

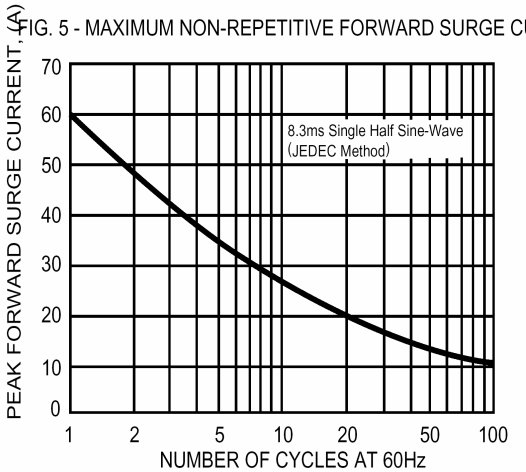


FIG. 6 - TYPICAL JUNCTION CAPACITANCE