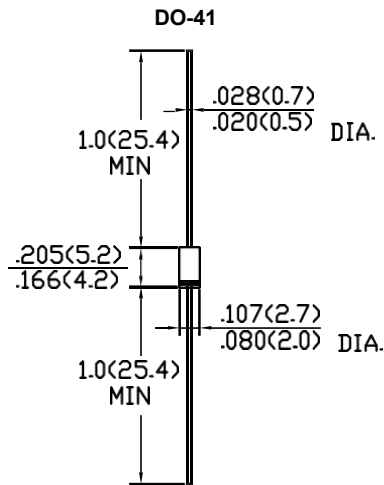


REVERSE VOLTAGE: 50 to 1000 VOLTS
FORWARD CURRENT: 1.0 AMPERE



Dimensions in inches and (millimeters)

FEATURES

- Low power loss, high efficiency
- Low forward voltage drop
- Low leakage
- High current capability
- High speed switching
- High forward surge capability
- High reliability.

MECHANICAL DATA

Case: Molded plastic, DO-41
Epoxy: UL 94V-O rate flame retardant
Terminals: Axial leads, solderable per MIL-STD-202, method 208 guaranteed
Polarity: Band denotes cathode
Mounting position: Any Weight:
0.012ounce, 0.33gram

Maximum Ratings and Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.
Single phase, half wave, 60Hz, 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 $T_A=50^\circ\text{C}$	$I_{(AV)}$	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 $T_A=25^\circ\text{C}$	V_F	1.0		1.3		1.7				Volts
Maximum Reverse Current at $T_J=25^\circ\text{C}$ at Rated DC Blocking Voltage $T_J=100^\circ\text{C}$	I_R	10.0				100				uAmp
Typical Junction Capacitance (Note 1)	C_J	15				10				pF
Maximum Reverse Recovery Time (Note 2)	T_{RR}	50				75				nS
Typical Thermal Resistance (Note 3)	$R_{\theta JA}$	70								°C/W
Operating Junction Temperature Range	T_J	-55 to +150								°C
Storage Temperature Range	T_{stg}	-55 to +150								°C

NOTES:

- 1- Measured at 1 MHz 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-MAXIMUM FORWARD CURRENT DERATING CURVE

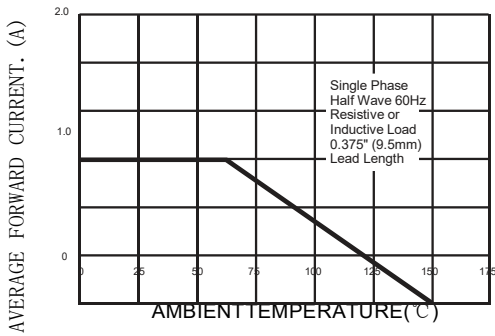


Fig. 2- Peak Forward Surge Current

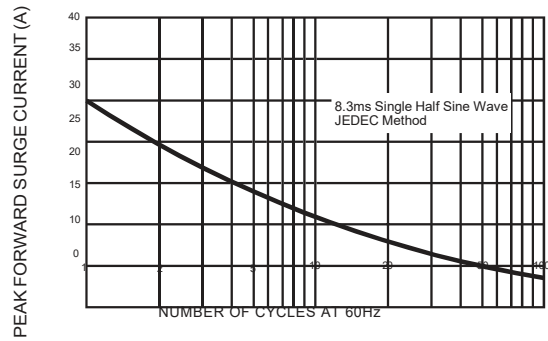


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

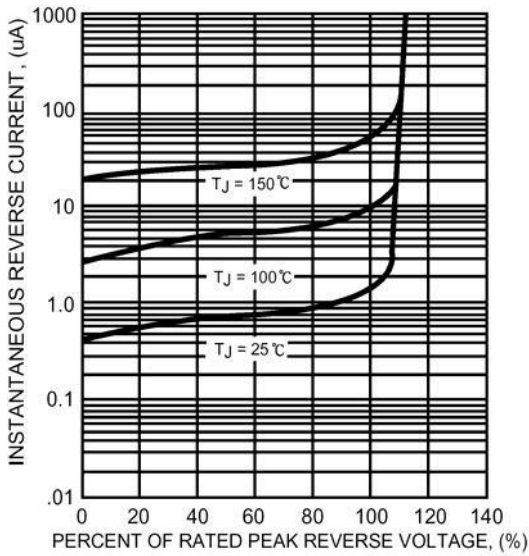


FIG. 4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

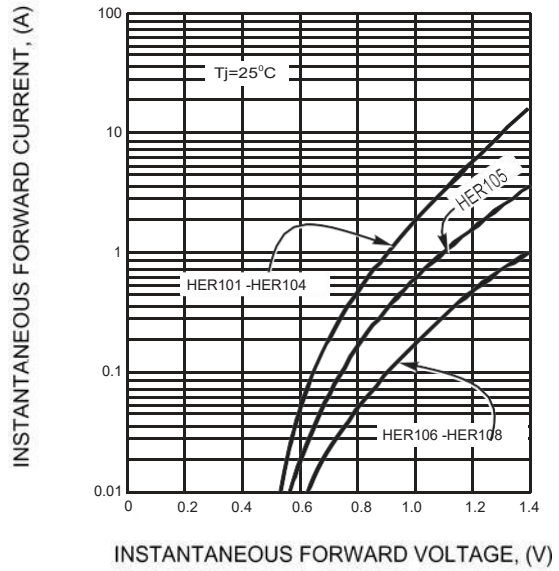
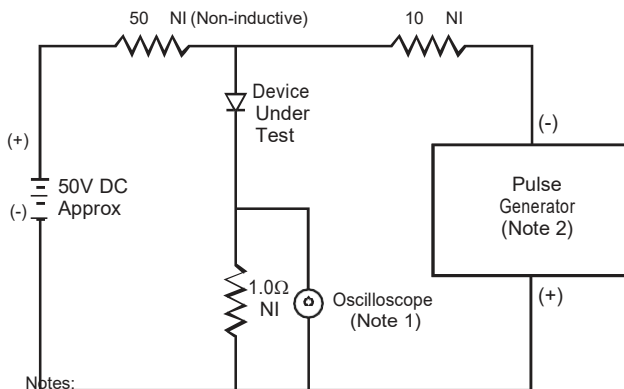
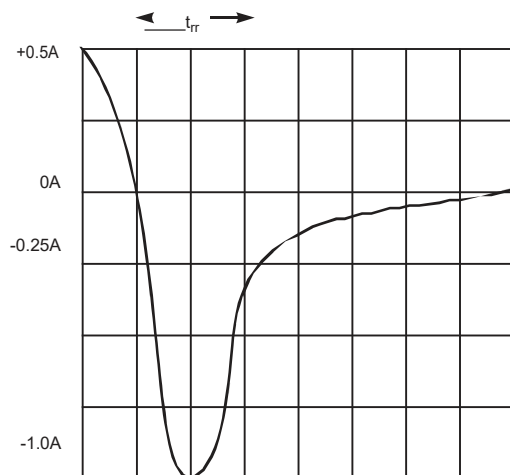


Fig. 5 Reverse Recovery Time Characteristic and Test Circuit



- Notes:
1. Rise Time = 7.0ns max. Input Impedance = 1.0MΩ, 22pF.
 2. Rise Time = 10ns max. Input Impedance = 50Ω.



Set time base for 5/10ns/cm