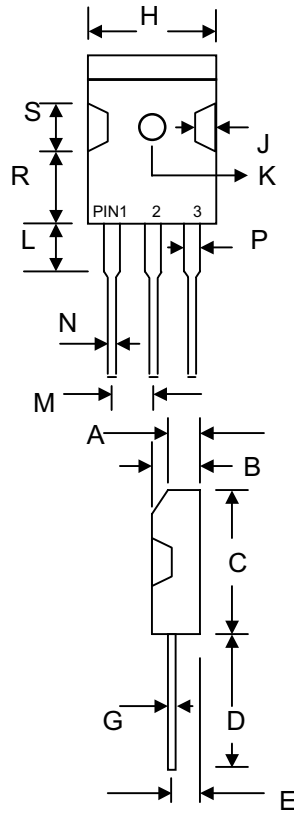


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Features

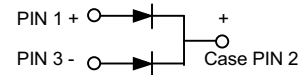
- Glass Passivated Die Construction
- Ultra-Fast Switching
- High Current Capability
- Low Reverse Leakage Current
- High Surge Current Capability
- Plastic Material has UL Flammability Classification 94V-O

Mechanical Data

- Case: Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-750, Method 2026
- Polarity: See Diagram
- Weight: 5.6 grams (approx.)
- Mounting Position: Any
- Marking: Type Number



TO-3P		
Dim	Min	Max
A	0.126(3.20)	0.138(3.50)
B	0.181(4.59)	0.203(5.16)
C	0.819(20.80)	0.839(21.30)
D	0.776(19.70)	0.795(20.20)
E	0.083(2.10)	0.094(2.40)
G	0.020(0.51)	0.030(0.76)
H	0.626(15.90)	0.646(16.40)
J	0.067(1.70)	0.106(2.70)
K	0.122(3.10)Ø	0.130(3.30)Ø
L	0.138(3.50)	0.176(4.51)
M	0.205(5.20)	0.224(5.70)
N	0.044(1.12)	0.048(1.22)
P	0.114(2.90)	0.130(3.30)
R	0.461(11.70)	0.504(12.80)
S	0.170(4.30) Typical	
All Dimensions in inch(mm)		



Maximum Ratings and Electrical Characteristics @ $T_A=25^{\circ}\text{C}$ unless otherwise specified

Single Phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

Characteristic	Symbol	HER 3001PT	HER 3002PT	HER 3003PT	HER 3004PT	HER 3005PT	HER 3006PT	HER 3007PT	HER 3008PT	Unit	
Peak Repetitive Reverse Voltage	V_{RRM}									V	
Working Peak Reverse Voltage	V_{RWM}	50	100	200	300	400	600	800	1000		
DC Blocking Voltage	V_R										
RMS Reverse Voltage	$V_{R(RMS)}$	35	70	140	210	280	420	560	700	V	
Average Rectified Output Current @ $T_C = 100^{\circ}\text{C}$	I_o	30								A	
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	300								A	
Forward Voltage @ $I_F = 15\text{A}$	V_{FM}	1.0			1.3		1.7			V	
Peak Reverse Current @ $T_A = 25^{\circ}\text{C}$ At Rated DC Blocking Voltage @ $T_A = 125^{\circ}\text{C}$	I_{RM}	10				500					μA
Reverse Recovery Time (Note 1)	t_{rr}	50					80				nS
Typical Junction Capacitance (Note 2)	C_j	175					145				pF
Operating and Storage Temperature Range	T_j, T_{STG}	-55 to +150								$^{\circ}\text{C}$	

Note: 1. Measured with $I_F = 0.5\text{A}$, $I_R = 1.0\text{A}$, $IRR = 0.25\text{A}$. See figure 1.
2. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.

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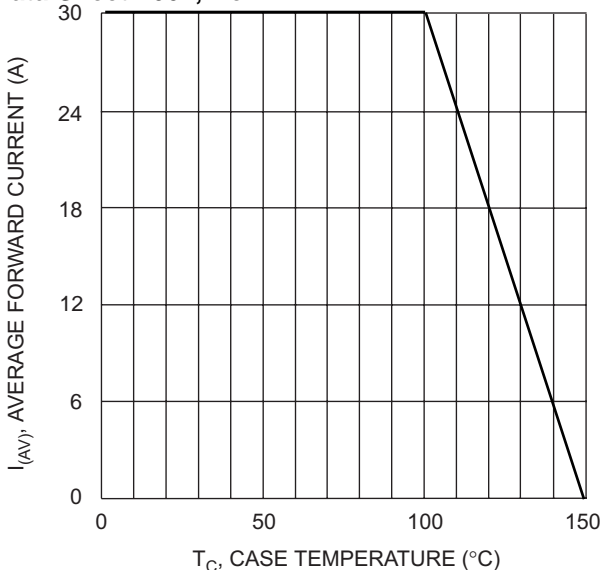


Fig. 1 Forward Current Derating Curve

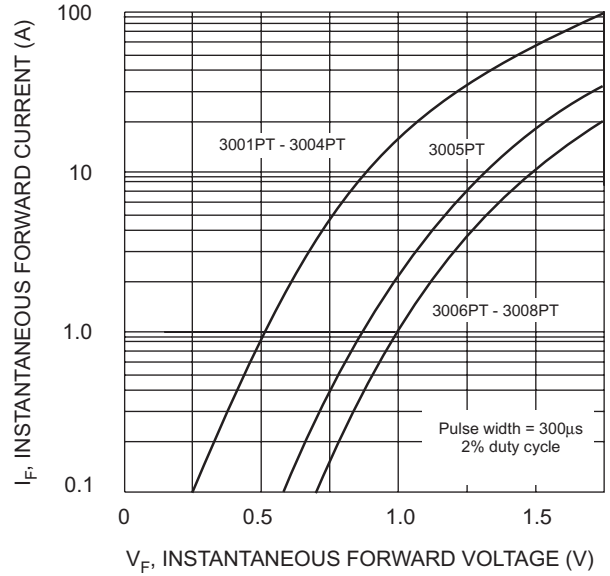


Fig. 2 Typical Forward Characteristics

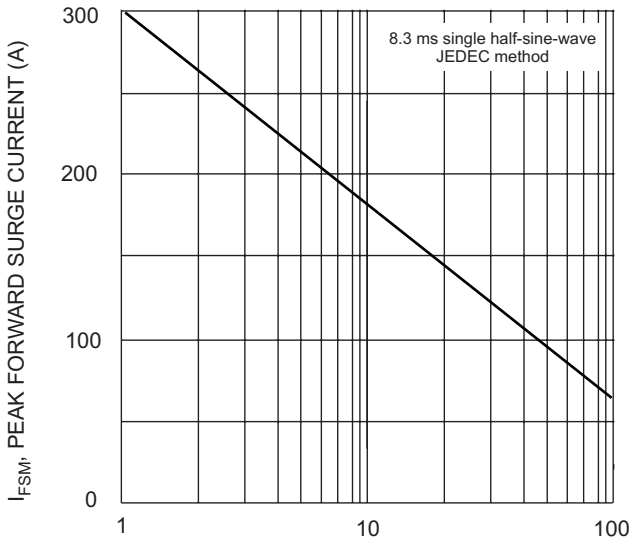


Fig. 3 Maximum Non-Repetitive Surge Current

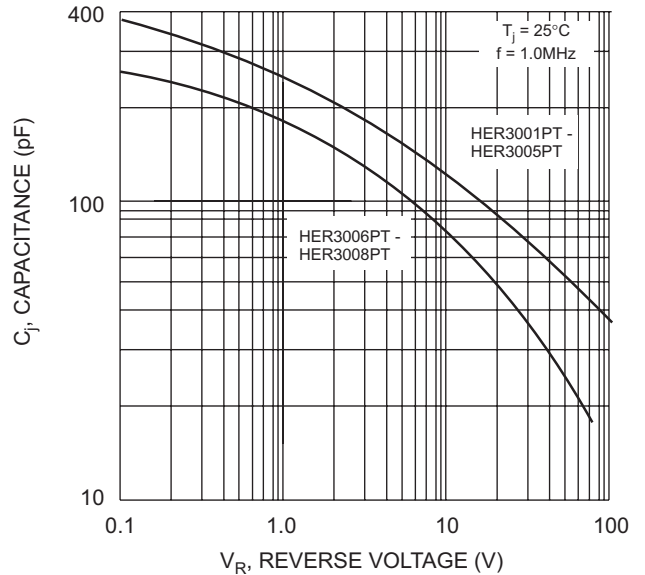
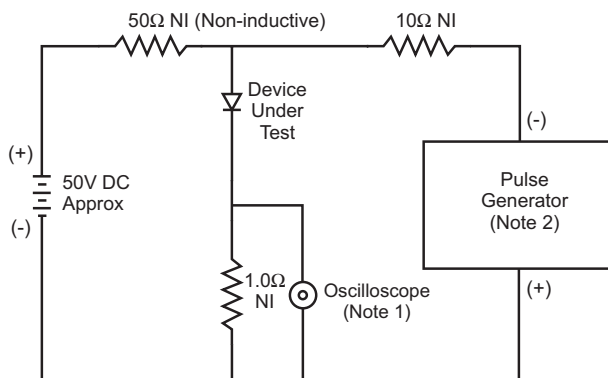
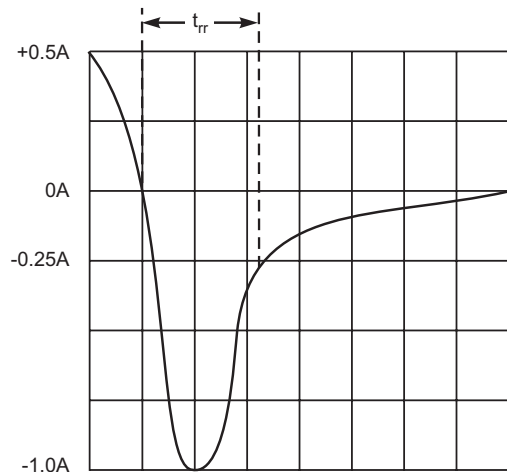


Fig. 4 Typical Junction Capacitance



- 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

Fig. 5 Reverse Recovery Time Characteristic and Test Circuit