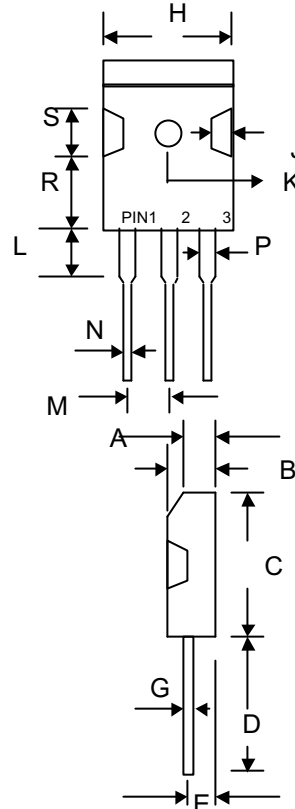


**Features**

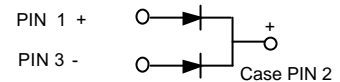
- Glass Passivated Die Construction
- Ultra-Fast Switching
- High Current Capability
- Low Reverse Leakage Current
- High Surge Current Capability
- Plastic Material has UL Flammability Classification 94V-O
- Green Products in Compliance with the RoHS Directive

**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	Min	Max
A	3.20	3.50	0.126	0.138
B	4.59	5.16	0.181	0.203
C	20.80	21.30	0.819	0.839
D	19.70	20.20	0.776	0.795
E	2.10	2.40	0.083	0.094
G	0.51	0.76	0.020	0.030
H	15.90	16.40	0.626	0.646
J	1.70	2.70	0.067	0.106
K	3.10 Ø	3.30	0.12 Ø	0.130
L	3.50	4.51	0.138	0.178
M	5.20	5.70	0.205	0.224
N	1.12	1.22	0.044	0.048
P	2.90	3.30	0.114	0.130
R	11.70	12.80	0.46	0.504
S	4.30 Typical		0.169 Typical	
	In mm		In inch	



**Maximum Ratings and Electrical Characteristics @<sub>T<sub>A</sub></sub>=25 °C unless otherwise specified**

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

Characteristic	Symbol	HER	HER	HER	HER	HER	HER	HER	HER	Unit
		1601PT-G	1602PT-G	1603PT-G	1604PT-G	1605PT-G	1606PT-G	1607PT-G	1608PT-G	
Peak Repetitive Reverse Voltage	V <sub>RRM</sub>	50	100	200	300	400	600	800	1000	V
Working Peak Reverse Voltage	V <sub>RWM</sub>									
DC Blocking Voltage	V <sub>R</sub>									
RMS Reverse Voltage	V <sub>R(RMS)</sub>	35	70	140	210	280	420	560	700	V
Average Rectified Output Current @ <sub>T<sub>C</sub></sub> = 100 C	I <sub>O</sub>	16								A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	200								A
Forward Voltage @ <sub>I<sub>F</sub></sub> = 8.0A	V <sub>FM</sub>	1.0			1.3	1.7			V	
Peak Reverse Current @ <sub>T<sub>A</sub></sub> = 25 C At Rated DC Blocking Voltage @ <sub>T<sub>A</sub></sub> = 125 C	I <sub>RM</sub>	10 500								A
Reverse Recovery Time (Note 1)	t <sub>rr</sub>	50					80			nS
Typical Junction Capacitance (Note 2)	C <sub>j</sub>	85					60			pF
Operating and Storage Temperature Range	T <sub>j</sub> , T <sub>STG</sub>	-55 to +150								C

Note: 1. Measured with I<sub>F</sub> = 0.5A, I<sub>R</sub> = 1.0A, I<sub>RR</sub> = 0.25A. See figure 1.  
2. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.

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**Green Products**

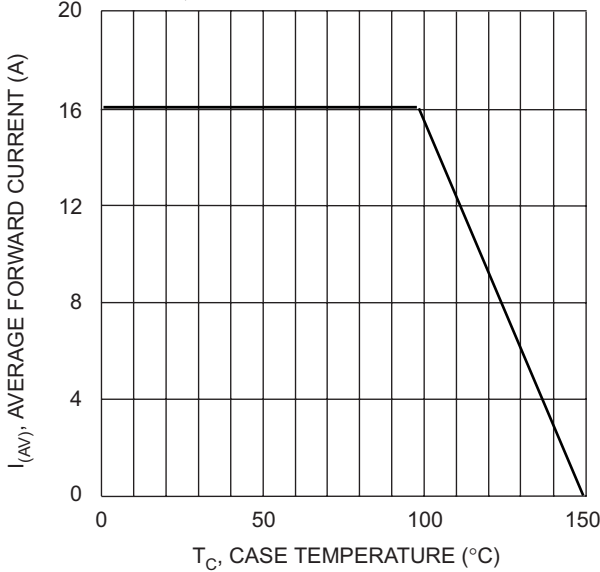


Fig. 1 Forward Current Derating Curve

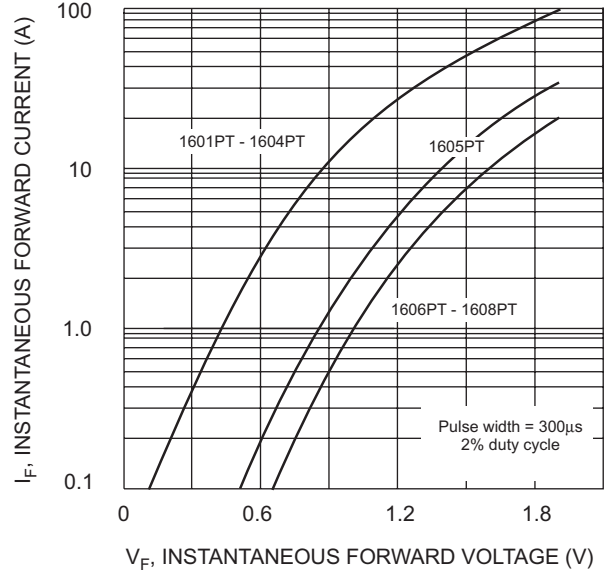


Fig. 2 Typical Forward Characteristics

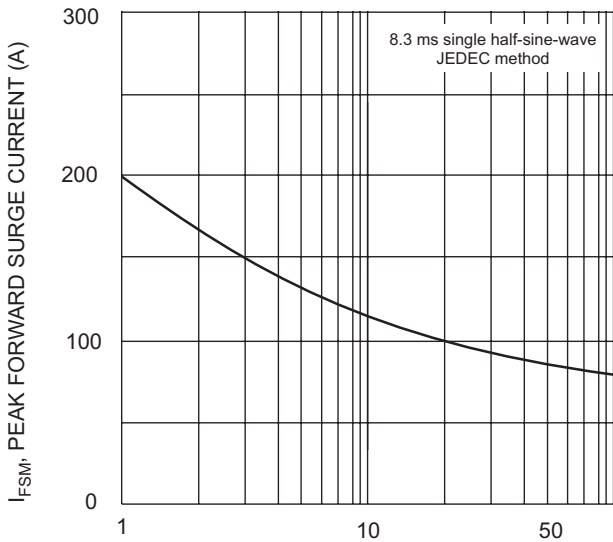


Fig. 3 Maximum Non-Repetitive Surge Current

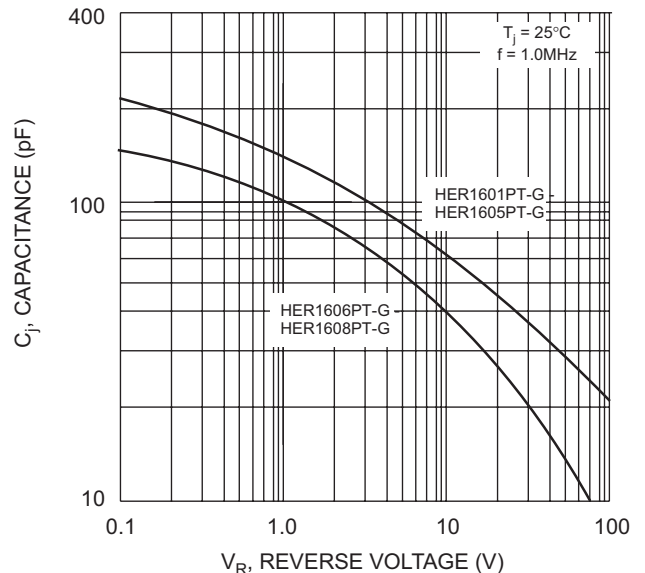
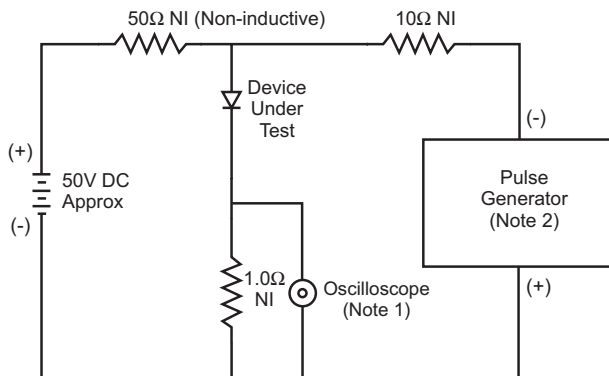
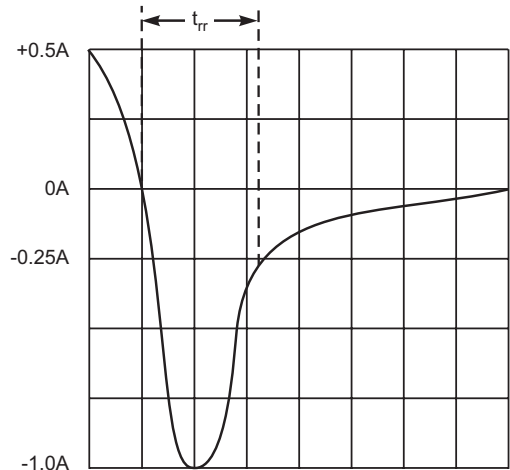


Fig. 4 Typical Junction Capacitance



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

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