



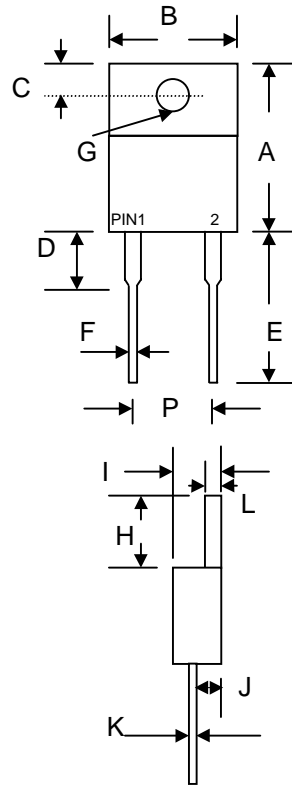
**VOLTAGE RANGE: 50 -1000V**  
**CURRENT: 8.0 A**

### Features

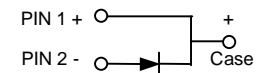
- Low switching noise
- Low forward voltage drop
- Low thermal resistance
- High current capability
- High fast switching capability
- High surge capacity

### Mechanical Data

- Case: TO-220 molded plastic
- Epoxy: UL94V-0 rate flame retardant
- Lead: MIL-STD-202E method 208C guaranteed
- Mounting position :Any
- Weight: 2.24 grams



TO-220		
Dim	Min	Max
A	14.9	15.1
B	—	10.5
C	2.62	2.87
D	3.56	4.06
E	13.46	14.22
F	0.68	0.94
G	3.74 Ø	3.91 Ø
H	5.84	6.86
I	4.44	4.70
J	2.54	2.79
K	0.35	0.64
L	1.14	1.40
P	4.95	5.20
All Dimensions in mm		



### Maximum Ratings and Electrical Characteristics T<sub>A</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 801	HER 802	HER 803	HER 804	HER 805	HER 806	HER 807	HER 808	Unit
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	50	100	200	300	400	600	800	1000	V
Maximum RMS Voltage	V <sub>RMS</sub>	35	70	140	210	280	420	560	420	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	200	300	400	600	800	600	V
Maximum Average Forward Rectified Current @T <sub>A</sub> = 75 °C	I <sub>O</sub>	8.0								A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Super Imposed on Rated Load(JEDEC Method)	I <sub>FSM</sub>	300								A
Typical Thermal Resistance	R <sub>JA</sub>	2.5								°C/W
Typical Junction Capacitance (Note2)	C <sub>J</sub>	40								pF
Peak Instantaneous Forward Voltage at 8.0A DC	V <sub>F</sub>	1.0			1.3		1.7			V
Maximum DC Reverse Current @T <sub>J</sub> =25°C at Rated DC Blocking Voltage @T <sub>J</sub> =100°C	I <sub>R</sub>					10				μA
Maximum Reverse Recovery Time(Note1)	T <sub>RR</sub>	60								nS
Operating and Storage Temperature Range	T <sub>J</sub> ,T <sub>STG</sub>	-55 to + 150								°C

NOTES:1.Measured with I<sub>F</sub>=0.5A,I<sub>R</sub>=1A,I<sub>RR</sub>=0.25A  
 2.Measured at 1.0 MHZ and applied reverse voltage of 4.0V DC

FIG.1- TYPICAL FORWARD CURRENT DERATING CURVE

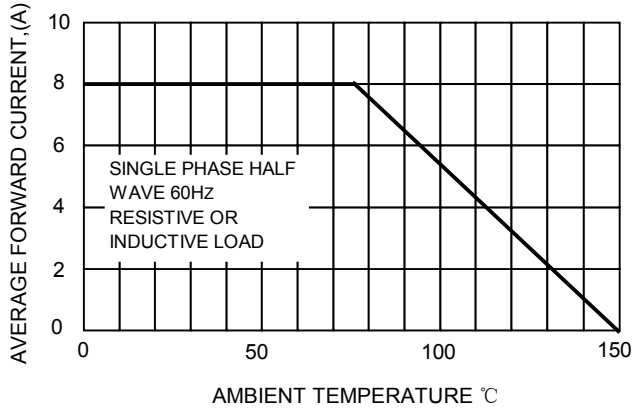


FIG.2-TYPICAL REVERSE CHARACTERISTICS

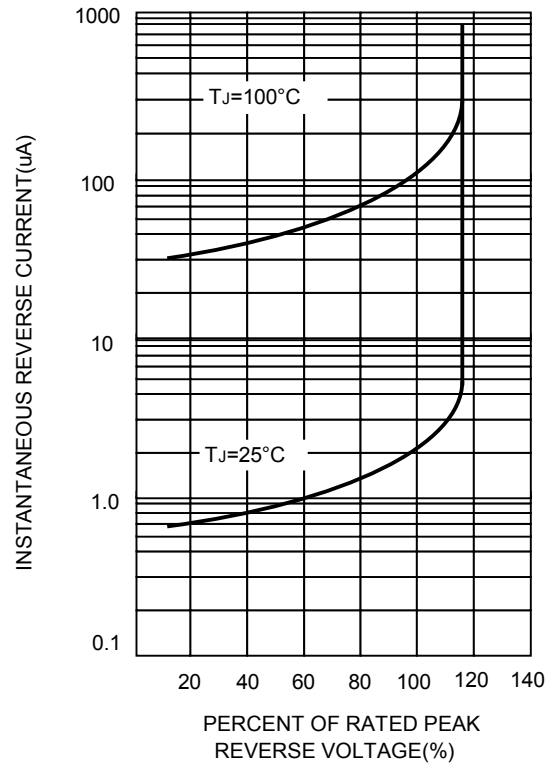


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

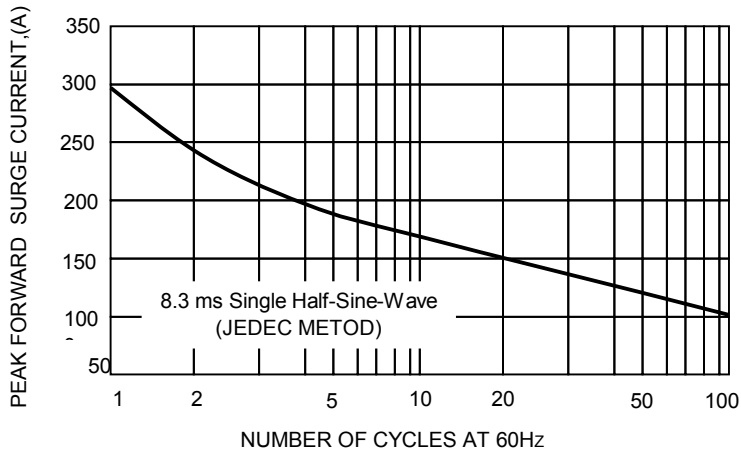


FIG.4-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

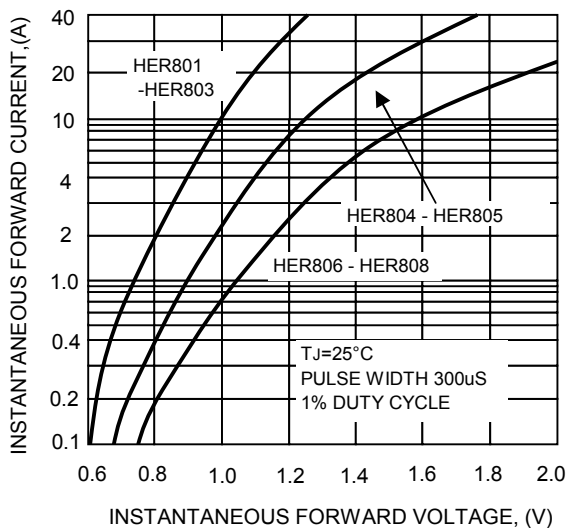


FIG.5-TYPICAL JUNCTION CAPACITANCE

