

## HER1601 THRU HER1608

### 16.0AMPS. GLASS PASSIVATED HIGH EFFICIENT RECTIFIERS

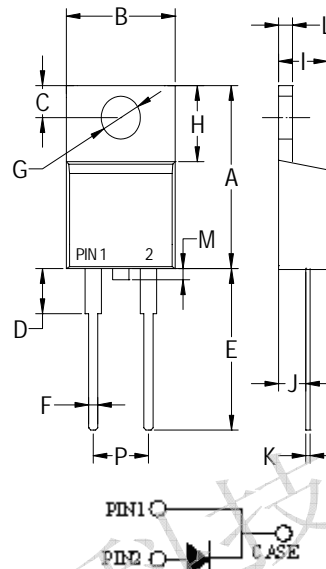
#### FEATURE

- Low forward voltage drop;
- High current capability;
- High reliability;
- High surge current capability;
- Epitaxial construction.
- High temperature soldering guaranteed:  
260°C /10sec/0.16", (4.06mm) from case.

#### MECHANICAL DATA

- Terminals: Lead solderable per MIL-STD-202, method 208 guaranteed.
- Case: Molded with UL-94V-0 Class recognized Flame Retardant Epoxy
- Polarity: As Marked
- Mounting position: Any

#### TO-220A



Dim	Min	Max
A	14.9	15.8
B	-----	10.5
C	2.62	2.87
D	3.56	4.06
E	13.0	14.3
F	0.68	0.94
G	∅3.74	∅3.91
H	5.84	6.86
I	4.44	4.86
J	2.54	2.79
K	0.35	0.64
L	1.14	1.40
P	5.20	4.95
M	-----	0.50

Dimensions in inches and (millimeters)

#### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(single-phase, half-wave, 60HZ, resistive or inductive load rating at 25°C, unless otherwise stated)

Type Number	SYM BOL	HER 1601	HER 1602	HER 1603	HER 1604	HER 1605	HER 1606	HER 1607	HER 1608	units	
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	50	100	200	300	400	600	800	1000	V	
Maximum RMS Voltage	$V_{RMS}$	35	70	140	210	280	420	560	700	V	
Maximum DC blocking Voltage	$V_{DC}$	50	100	200	300	400	600	800	1000	V	
Maximum Average Forward Rectified Current .375"(9.5mm) Lead Length at $T_c=100\text{C}$	$I_{F(AV)}$	16.0								A	
Peak Forward Surge Current 8.3ms singlehalf sine-wave superimposed on rated load(JEDEC method)	$I_{FSM}$	250.0								A	
Maximum Forward Voltage at 16.0A DC	$V_F$	1.0			1.3		1.7			V	
Maximum DC Reverse Current@ $T_a=25^\circ\text{C}$ at rated DC blocking voltage @ $T_a=100^\circ\text{C}$	$I_R$	10.0					400				mA
Maximum Reverse Recovery Time (Note 1)	$t_{rr}$	50					80				ns
Typical Junction Capacitance (Note2)	$C_J$	170					130				pF
Typical Thermal Resistance (Note3)	$R_{(JA)}$	2.5								°C/W	
Storage Temperature	$T_{STG}$	-55 to +150								°C	
Operating Junction Temperature	$T_J$	-55 to +150								°C	

#### Note:

1. Test Conditions:  $I_F=0.5\text{A}$ ,  $I_R=1.0\text{A}$ ,  $I_{RR}=0.25\text{A}$
2. Measured at 1.0 MHz and applied reverse voltage of 4.0Vdc
3. Thermal Resistance From Junction to Case Mounted on Heatsink.

**RATING AND CHARACTERISTIC CURVES (HER1601 THRU HER1608)**

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

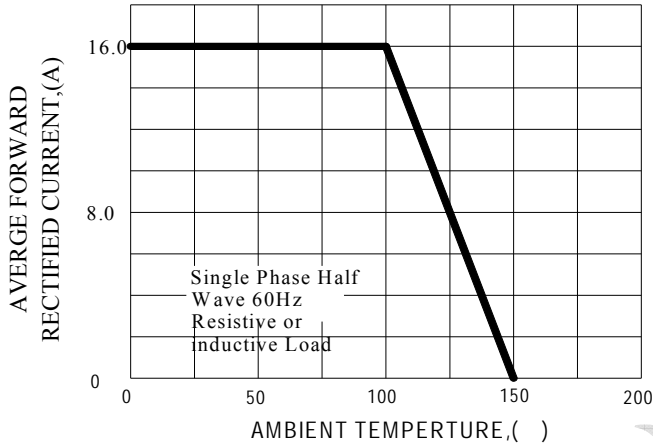


FIG.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

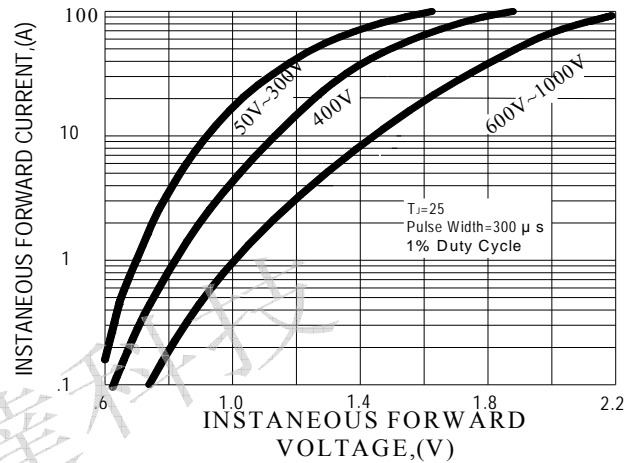


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

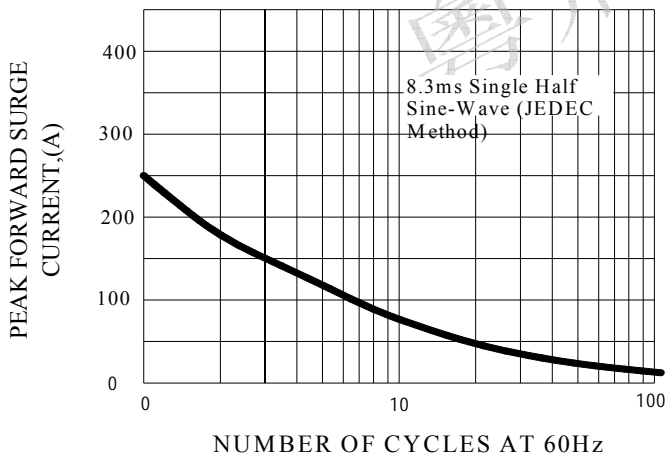


FIG.4-TYPICAL REVERSE CHARACTERISTICS

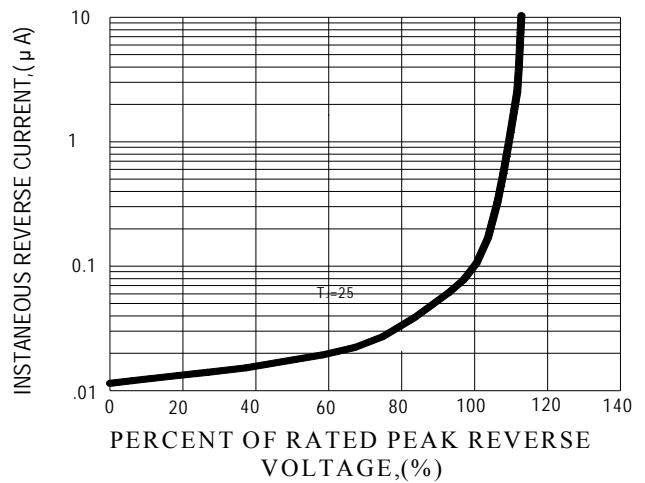


FIG.6-TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC

