HERF1601G THRU HERF1608G

Glass Passivated High Efficient Rectifiers

Features

* Glass passivated chip junction
* High efficiency, Low VF
* High current capability
* High Reliability
* High surge current capability
* For use in low voltage, high frequency inverter, free wheeling, and polarity protection application

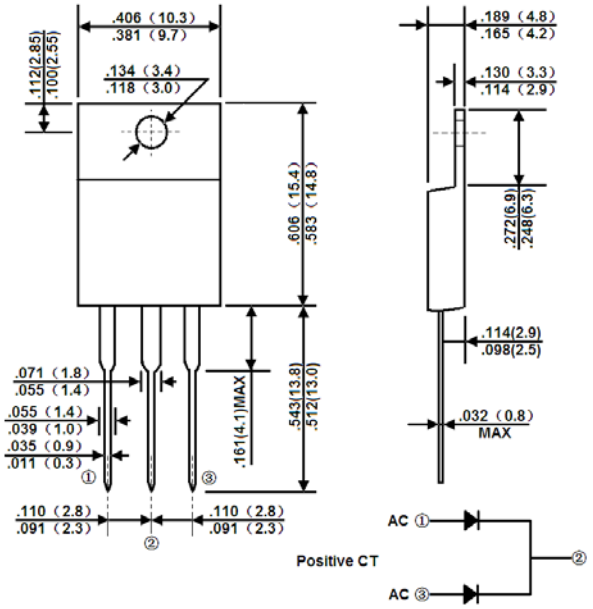
RoHS COMPLIANT

Mechanical Data

* Case: ITO-220AB
* Epoxy: UL 94V-0 rate flame retardant
* Terminals: Pure tin plated, lead free, solderable per MIL-STD-202, Method 208 guaranteed
* Polarity: As marked
* High temperature soldering guaranteed: 260℃/ 0.25", (6.35mm) from case for 10 seconds
* Mounting torque: 5 in-lbs. max

Package Outline Dimensions in inches (millimeters)

ITO-220AB：



Maximum Ratings and Electrical Characteristics

Rating at 25 ℃ ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Type Number	Symbol	HERF 1601G	HERF 1602G	HERF 1603G	HERF 1604G	HERF 1605G	HERF 1606G	HERF 1607G	HERF 1608G	Unit
Maximum Repetitive 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 D.C Blocking Voltage	V_{DC}	50	100	200	300	400	600	800	1000	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	16								A
Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load(JEDEC method)	I_{FSM}	125								A
Maximum Instantaneous Forward Voltage (Note 1) @ 8A	V_F	1.0				1.3	1.7			V
Maximum D.C Reverse Current @ T_A=25℃ at Rated D.C Blocking Voltage @ T_A=125℃	I_R	10 400								μA
Maximum Reverse Recovery Time (Note 2)	Trr	50					80			nS
Typical Junction Capacitance (Note 3)	Cj	80					50			pF
Typical Thermal Resistance	$R_{\theta JC}$	1.5								℃/W
Operating and Storage Temperature Range	T_J/T_{STG}	-55 to +150								℃

Note:1、Pulse Test with PW=300 usec, 1% Duty Cycle 2、Reverse Recovery Test Conditions: IF=0.5A, IR=1.0A, IRR=0.25A
3、Measured at 1 MHz and Applied Reverse Voltage of 4.0V D.C.

Ratings and Characteristic Curves

FIG.1 FORWARD CURRENT DERATING CURVE

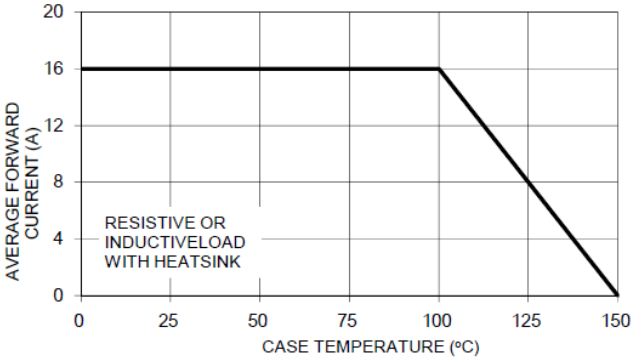


FIG. 2 TYPICAL REVERSE CHARACTERISTICS

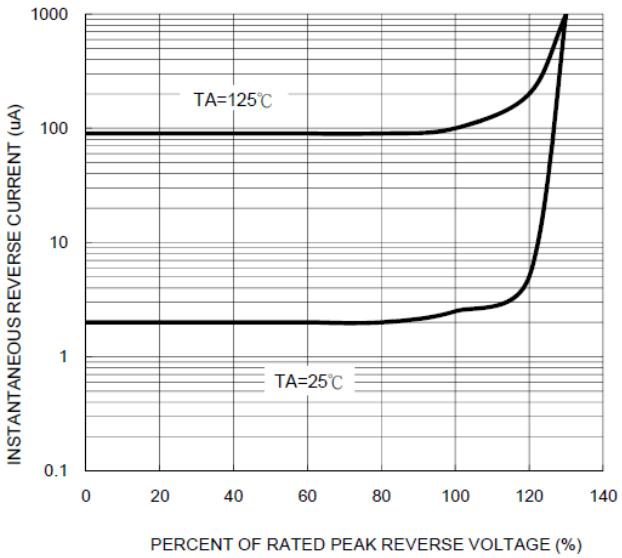


FIG. 3 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

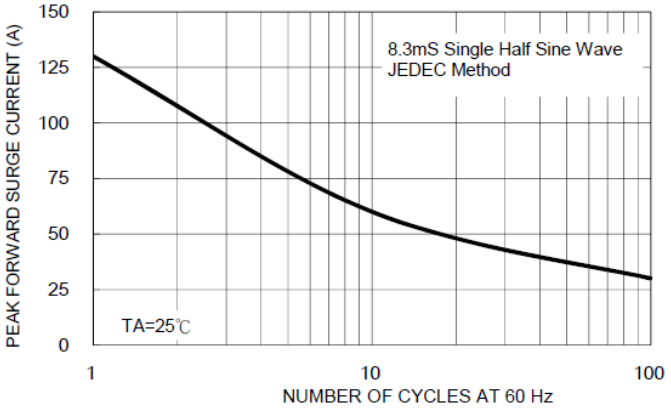


FIG. 5 TYPICAL FORWARD CHARACTERISTICS

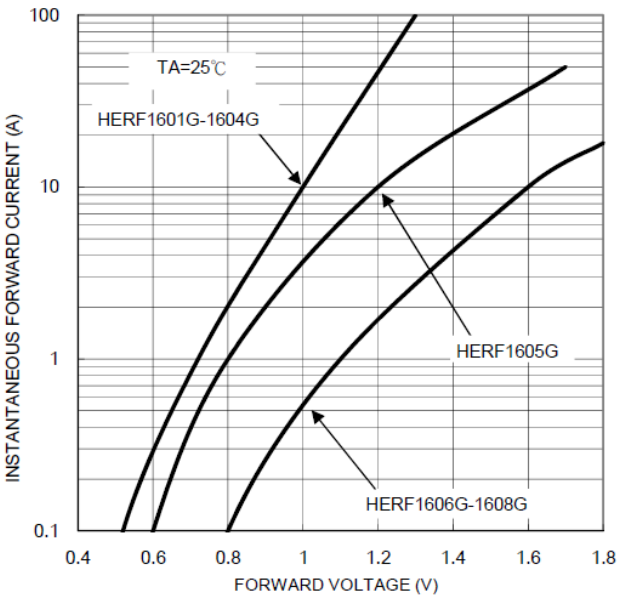


FIG. 4 TYPICAL JUNCTION CAPACITANCE

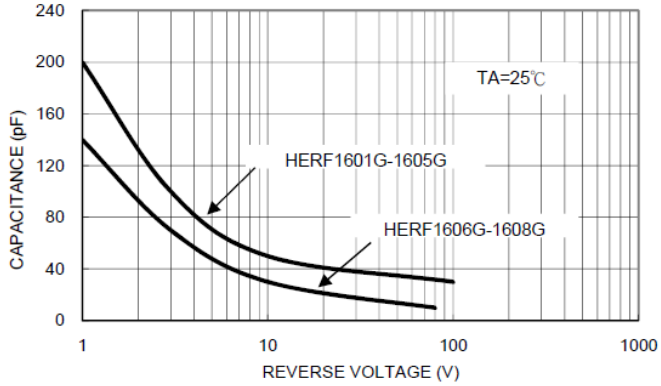
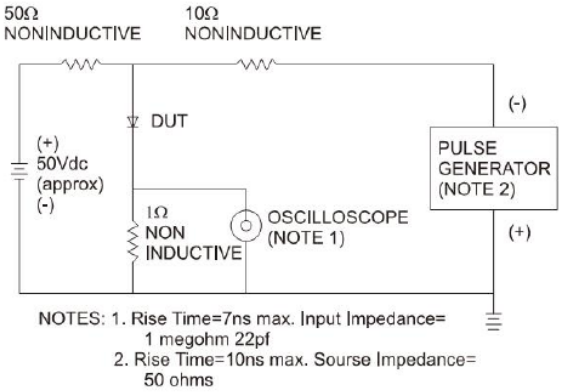
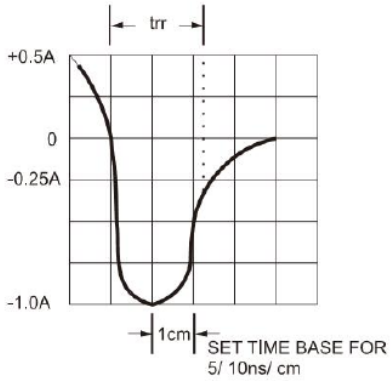


FIG.6- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM





Ordering Information

Part No.	Package	Packing
HERF1601G~HERF1608G	ITO-220AB	50pcs/Tube