High Efficiency Glass Passivated Rectifier

Features

- Glass passivated chip junction
- Low power loss, high efficiency
- Low leakage
- High Surge Capacity
- High switching speed
- High temperature soldering guaranteed:
  250℃/10 seconds, 0.16" (4.06mm) lead length
- Also available in an isolated package, HERF1601C
- Also available in the single chip version, HER1601
- Also available with common Anode, add an "A" suffix, i.e. HER1601CA, and as a doubler, add a "D" suffix, i.e. HER 1601CD
- RoHS and REACH Compliance

Mechanical Data

Case:	Transfer molded plastic
Polarity:	As marked
Epoxy:	UL94V-0 rate flame retardant
Lead:	Plated axial lead, solderable per MIL-STD-202E Method 208C
Mounting Position:	Any, 5 in-lbs Torque Max
Weight:	0.064 ounce, 1.81 gram

Maximum Ratings *($T_{Ambient}$=25ºC unless noted otherwise)*

Symbol	Description	HER 1601C	HER 1602C	HER 1603C	HER 1604C	HER 1605C	HER 1606C	HER 1607C	HER 1608C	Unit	Conditions
VRRM	Max Recurrent Peak Reverse Voltage	50	100	200	300	400	600	800	1000	**V**	
VRMS	Max RMS Voltage	35	70	140	210	280	420	560	700	**V**	
VDC	Max DC Blocking Voltage	50	100	200	300	400	600	800	1000	**V**	
I(AV)	Max Average Forward Rectified Current 0.375" (9mm) lead length	16.0								**A**	Tc=100℃
IFSM	Peak Forward Surge Current	150								**A**	JEDEC method
TJ,TSTG	Operating and Storage Temperature Range	-55 to +150, -55 to +150								℃	

Electrical Characteristics *($T_{Ambient}$=25ºC unless noted otherwise)*

Symbol	Description	HER 1601C	HER 1602C	HER 1603C	HER 1604C	HER 1605C	HER 1606C	HER 1607C	HER 1608C	Unit	Conditions
VF	Max Instantaneous Forward Voltage	1.0		1.3		1.5		1.7		**V**	8.0A
RθJA	Typical Thermal Resistance	2.5								℃/W	Note 2
IR	Max DC Reverse Current at Rated DC Blocking Voltage	10								**μA**	TA=25℃
		500									TA=125℃
TRR	Maximum reverse recovery time	50				75				**nS**	Note 1
CJ	Typical Junction capacitance	40								**pF**	Measured at 1.0MHz / 4.0V

Note:

1. Reverse recovery test conditions: I_F= 0.5A, I_R=1.0A, I_{RR} = 0.25A
2. Unit mounted on heatsink

HER1601C ~ HER1608C

RATINGS AND CHARACTERISTIC CURVES HER1601C THRU HER1608C

FIG.1—TYPICAL FORWARD CURRENT DERATING CURVE

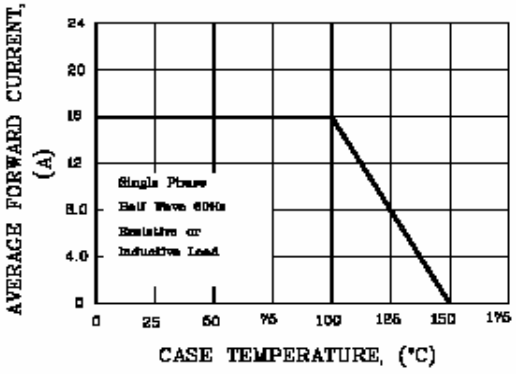


FIG.2—MAXIMUM NON—REPETITIVE PEAK FORWARD SURGE CURRENT

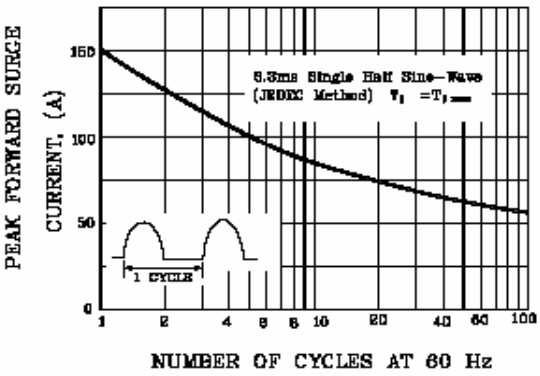


FIG.3—TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER LEG

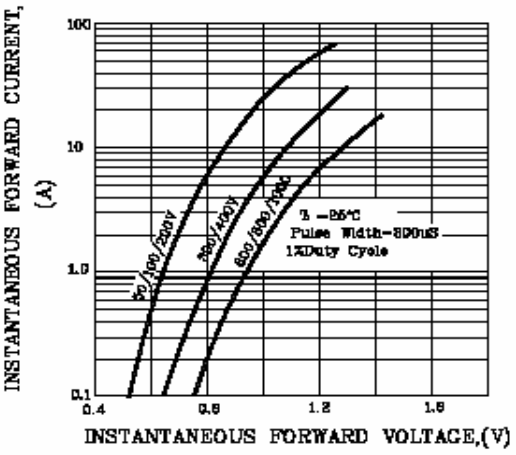


FIG.4—TYPICAL REVERSE CHARACTERISTICS PER LEG

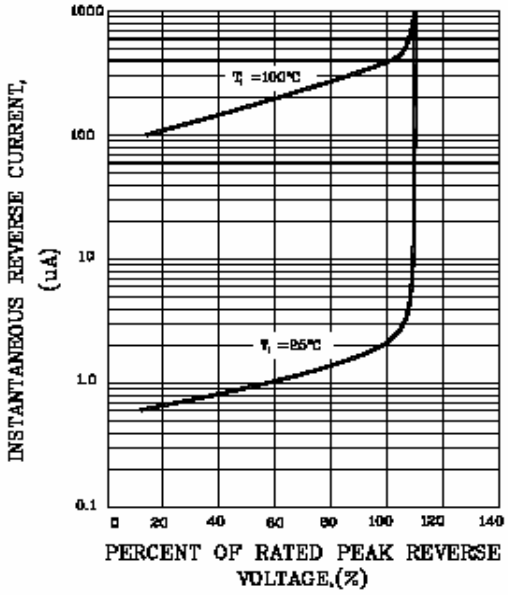


FIG.5—TYPICAL JUNCTION CAPACITANCE PER LEG

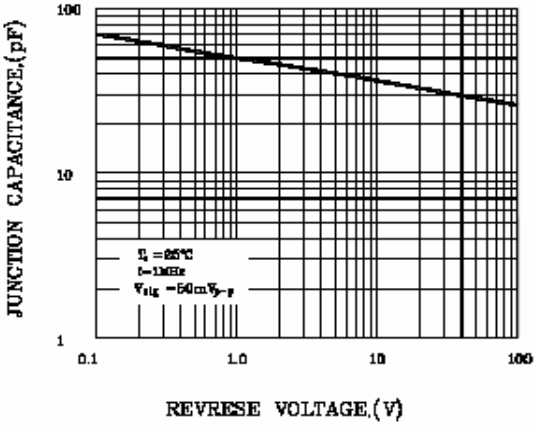
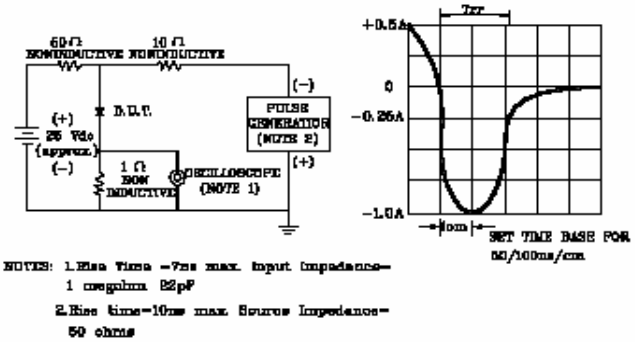


FIG.6—TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC

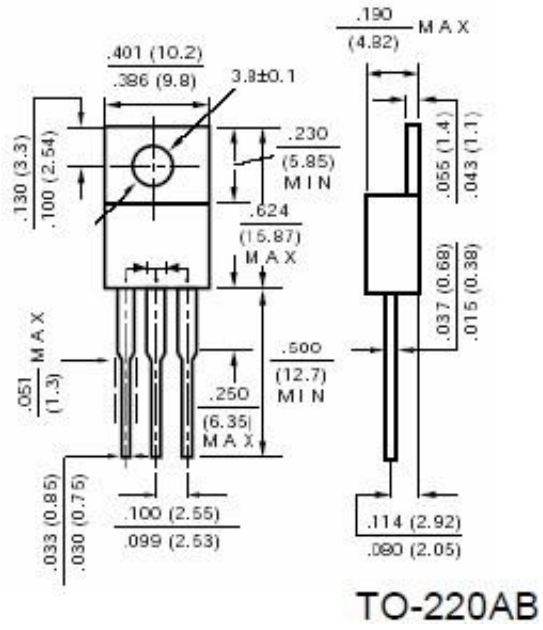


NOTES: 1.Rise Time =7ns max. Input Impedance= 1 megohm 22pF

2.Rise time=10ns max. Source Impedance= 50 ohms

HER1601C ~ HER1608C

Dimensions in inches (mm)



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