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:
  260℃/10 seconds, 0.375" (9.5mm) lead length
- RoHS and REACH Compliance

Mechanical Data

Case:	Transfer molded plastic
Polarity:	Color band denots cathode end
Epoxy:	UL94V-0 rate flame retardant
Lead:	Plated axial lead, solderable per MIL-STD-202E Method 208C
Mounting Position:	Any
Weight:	0.014 ounce, 0.39 gram

Maximum Ratings *(T Ambient=25ºC unless noted otherwise)*

Symbol	Description	HER 201G	HER 202G	HER 203G	HER 204G	HER 205G	HER 206G	HER 207G	HER 208G	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	2.0								**A**	TA=50℃
IFSM	Peak Forward Surge Current	60								**A**	JEDEC method
TJ,TSTG	Operating and Storage Temperature Range	-55 to +150, -55 to +150								℃	
RθJA	Typical Thermal Resistance	40								℃/W	Note 2

Electrical Characteristics *(T Ambient=25ºC unless noted otherwise)*

Symbol	Description	HER 201G	HER 202G	HER 203G	HER 204G	HER 205G	HER 206G	HER 207G	HER 208G	Unit	Conditions
VF	Max Instantaneous Forward Voltage	1.0		1.3		1.5		1.7		**V**	2.0A
IR(AV)	Maximum Full Load Reverse Current, Full Cycle average	100								**μA**	0.375" (9.5mm) lead length at TL= 55℃
IR	Max DC Reverse Current at Rated DC Blocking Voltage	5.0								**μA**	TA=25℃
		250									TA=125℃
TRR	Maximum reverse recovery time	50				70				**nS**	Note 1
CJ	Typical Junction capacitance	30				20				**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. Thermal resistance from junction to ambient with 0.375" (9.5mm) lead length, PCB mounted

HER201G ~ HER208G

RATINGS AND CHARACTERISTIC CURVES HER201G THRU HER208G

FIG.1—TYPICAL FORWARD CURRENT DERATING CURVE

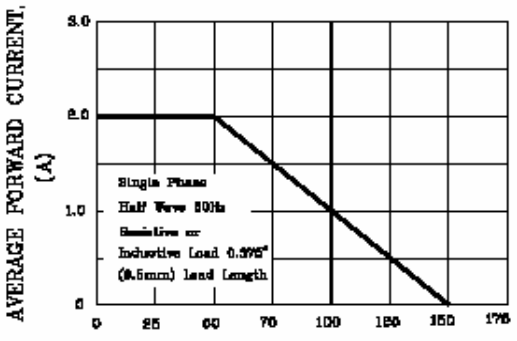


FIG.2—MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

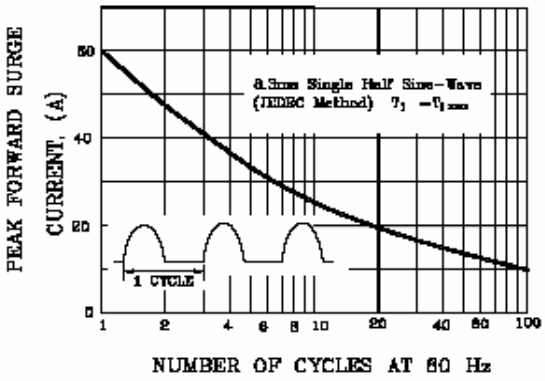


FIG.3—TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

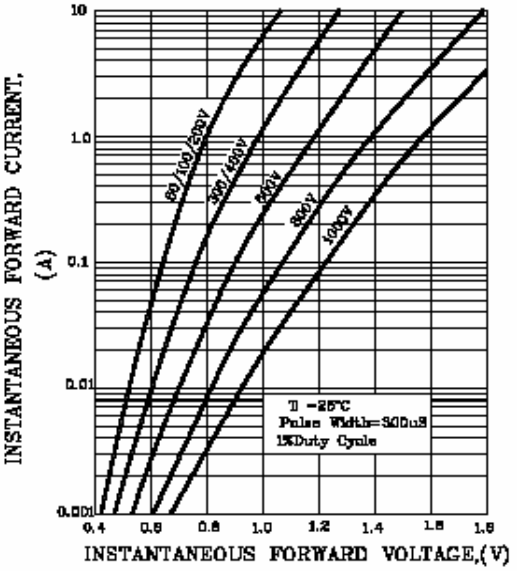


FIG.4—TYPICAL REVERSE CHARACTERISTICS

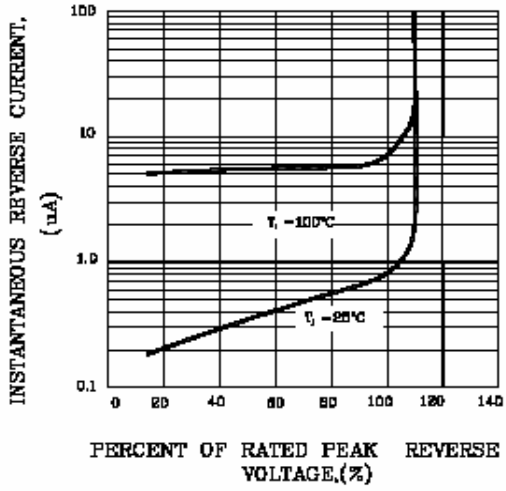


FIG.5—TYPICAL JUNCTION CAPACITANCE

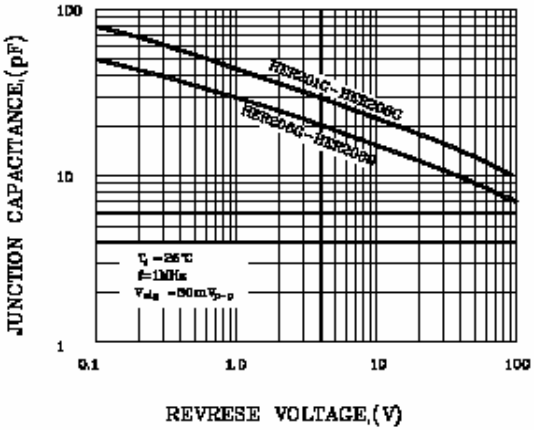
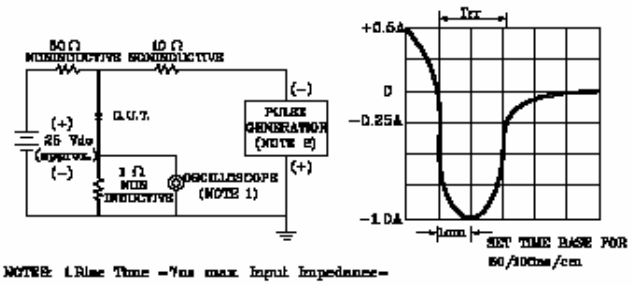


FIG.6—TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC

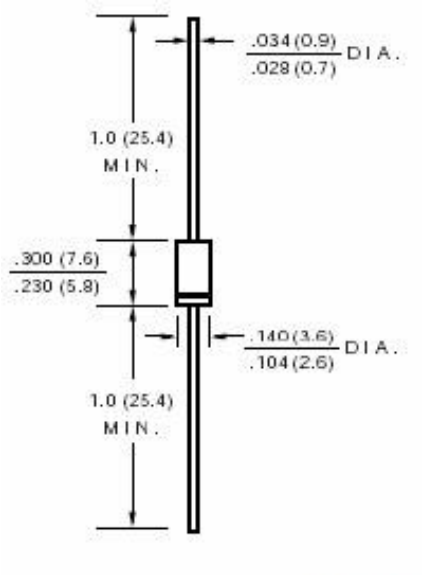


NOTES: 1.Rise Time =7ns max. Input Impedance= 1 megohm 22pF

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

HER201G ~ HER208G

Dimensions in inches (mm)



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Contact us:

US HEADQUARTERS

MEI SEMI INC.

2902 Corvin Drive, Santa Clara, CA95051, USA

Tel: 1-408-733-0808 Fax: 1-408-733-2828