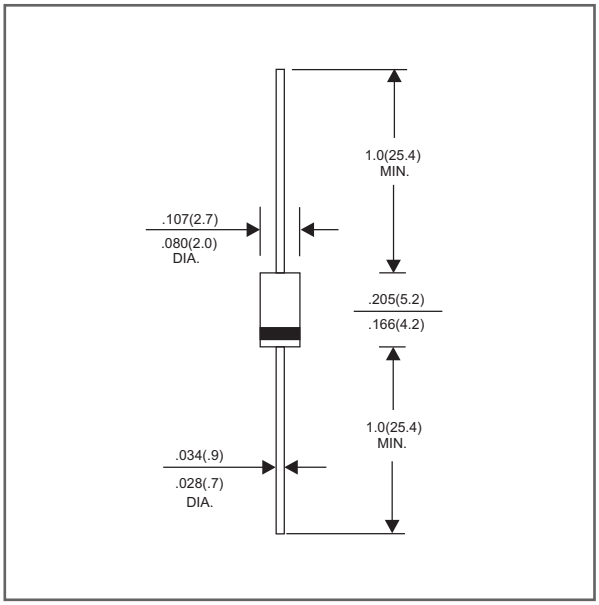
HER101G THRU HER108G

Silicon Rectifier

1.0A Leaded Type High Effciency Rectifiers - 50V-1000V

Package outline

DO-41



Dimensions in inches and (millimeters)

Features

- Axial lead type devices for through hole design.
- High current capability.
- Ultrafast recovery time for high efficiency.
- High surge current capability.
- Glass passivated chip junction.
- Lead-free parts meet RoHS requirments.
- Suffix "-H" indicates Halogen free parts, ex. HER101G-H.

Mechanical data

- Epoxy : UL94-V0 rated flame retardant
- Case : Molded plastic, DO-41
- Lead: Axial leads, solderable per MIL-STD-202, Method 208 guranteed
- Polarity: Color band denotes cathode end
- Mounting Position : Any
- Weight : Approximated 0.33 gram

Maximum ratings (AT T_A=25°C unless otherwise noted)

PARAMETER	CONDITIONS	Symbol	MIN.	TYP.	MAX.	UNIT
Forward rectified current	Ambient temperature = 50°C	I_O			1.0	A
Forward surge current	8.3ms single half sine-wave superimposed on rate load (JEDEC methode)	I_{FSM}			30	A
Reverse current	$V_R = V_{RRM}$ T_J = 25°C	I_R			5.0	μA
	$V_R = V_{RRM}$ T_J = 100°C				150	
Diode junction capacitance	f=1MHz and applied 4V DC reverse voltage	C_J		20		pF
Storage temperature		T_{STG}	-65		+175	°C

SYMBOLS	V_{RRM} *1 (V)	V_{RMS} *2 (V)	V_R *3 (V)	V_F *4 (V)	T_{RR} *5 (nS)	Operating temperature T_J, (°C)
HER101G	50	35	50	1.00	50	-55 to +150
HER102G	100	70	100			
HER103G	200	140	200			
HER104G	300	210	300	1.30		
HER105G	400	280	400			
HER106G	600	420	600	1.85	75	
HER107G	800	560	800			
HER108G	1000	700	1000			

*1 Repetitive peak reverse voltage

*2 RMS voltage

*3 Continuous reverse voltage

*4 Maximum forward voltage@I_F=1.0A

*5 Maximum Reverse recovery time, note 1

Note 1. Reverse recovery time test condition, I_F=0.5A, I_R=1.0A, I_{RR}=0.25A

Rating and characteristic curves

FIG.1- TY PICAL INSTANEOUS FORWARD CHARACTERISTICS

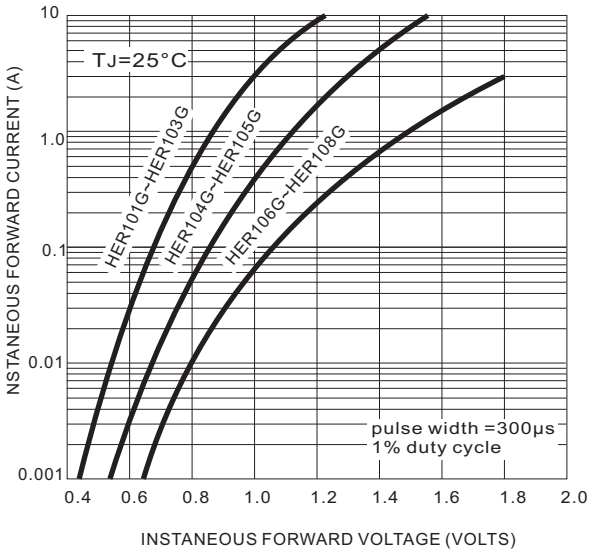


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

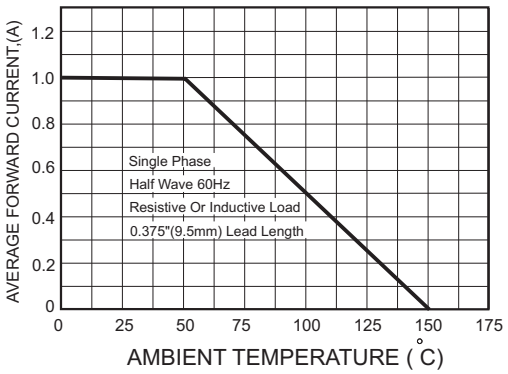
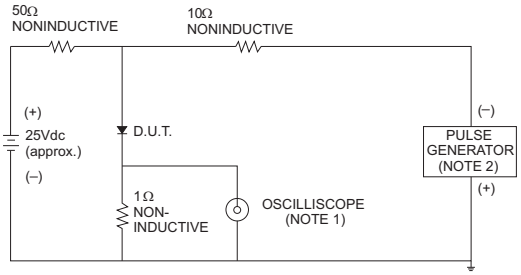


FIG.3- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTICS



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

2. Rise Time= 10ns max., Source Impedance= 50 ohms.

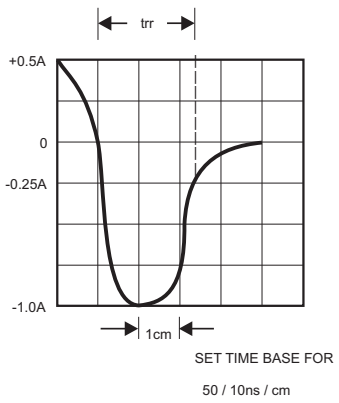


FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

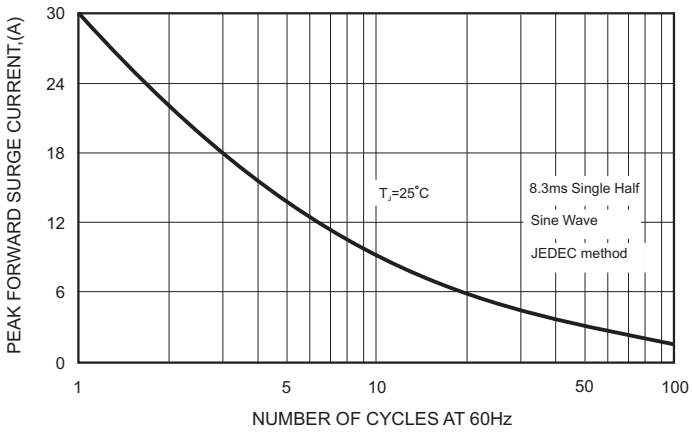


FIG.5-TYPICAL JUNCTION CAPACITANCE