# HER301G THRU HER308G

3.0 AMP. Glass High Efficient Rectifiers

Features

- Low forward voltage drop
- High current capability
- High reliability
- High surge current capability
- Plastic material-UL flammability 94V-0

Mechanical Data

- Case: Molded plastic DO-201AD
- Terminals: Plated leads solderable per MIL-STD-202,Method 208 guaranteed
- Polarity: Color band dentes cathode end
- Mounting Position: Any
- Making: Type Number
- Lead Free: For RoHS/Lead Free Version

Case: DO-201AD
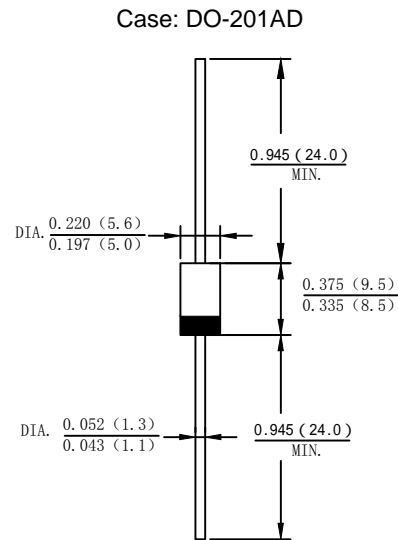
Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

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

Type Number	SYMBOL	HER 301G	HER 302G	HER 303G	HER 304G	HER 305G	HER 306G	HER 307G	HER 308G	Unit
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	630	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@T_L=100℃	$IF_{(AV)}$	3.0								A
Non-Repetitive Peak Forward Surge @$T_{j=25}$ ℃ Current 8.3ms Single half sine-wave@$T_{j=125}$ ℃ Superimposed On Rated Load (JEDEC Method)	I_{FSM}	125 100								A
Non-Repetitive Peak Forward Surge @$T_{j=25}$ ℃ Current 1.0ms Single half sine-wave@$T_{j=125}$℃ Superimposed On Rated Load (JEDEC Method)	I_{FSM}	250 200								A
10000 times of the wave surge current（time width 1ms, time interval 3s）	I_{FSM}	93.75								A
I^2t Rating for Fusing (t < 8.3ms)	I^2t	64.84								A^2s
Forward Voltage @IF=3.0A	V_{FM}	1.0			1.3			1.7		V
Peak Reverse Current @T_A=25℃	I_R	5.0								uA
At Rated DC Blocking Voltage @T_A=125℃		100								
Maximum Reverse Recovery Time(Note 1)	Trr	50						75		ns
Typical Junction Capacitance (Note 2)	C_J	50						20		pF
Typical Thermal Resistance Junction to Ambient	$R_{θJA}$	65								℃/W
Operating and Storage Temperature Range	T_J,T_{STG}	-55 to +150								℃

Note: 1.Reverse Recovery Test Conditions: IF=0.5A, IR=1A, Irr=0.25A

2. Measured at 1.0 MHz and Applied reverse Voltage of 4.0V D.C

Fig. 1 Forward Current Derating Curve

Average Forward Current (A) vs T_L Lead Temperature($°C$)
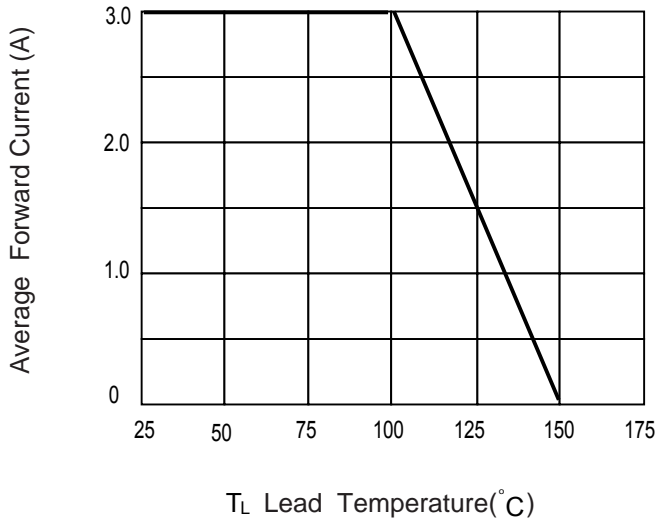
Fig. 2 Typ. Forward Characteristics

Instantaneous Forward Current (A) vs V_F, Instantaneous Forward Voltage (V)

$T_A = 25°C$

HER301G-HER304G

HER305G

HER306G-HER308G
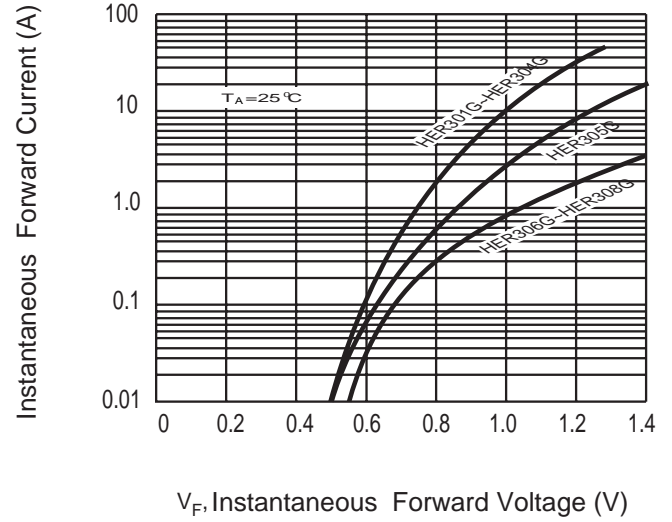
Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

I_{FSM}, Peak Forward Surge Current (A) vs Number Of Cycles At 60 Hz

PULSE WIDTH 8.3ms
SINGLE HALF-SINE-WAVE
(JEDEC METHOD)

Fig.4 Typical Junction Capacitance
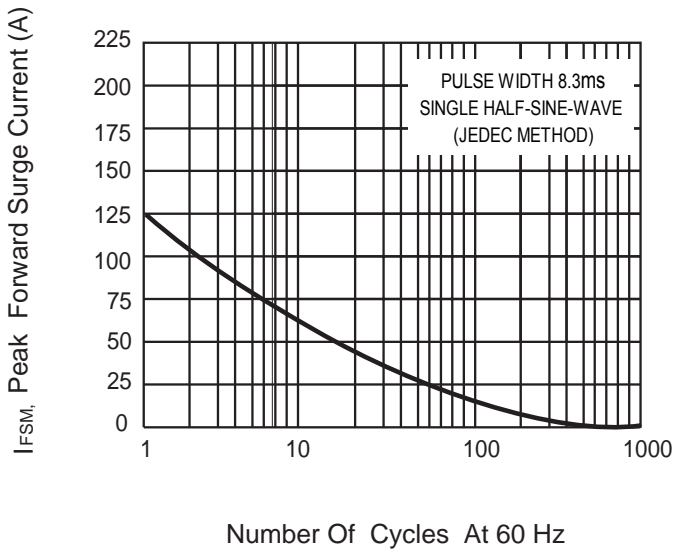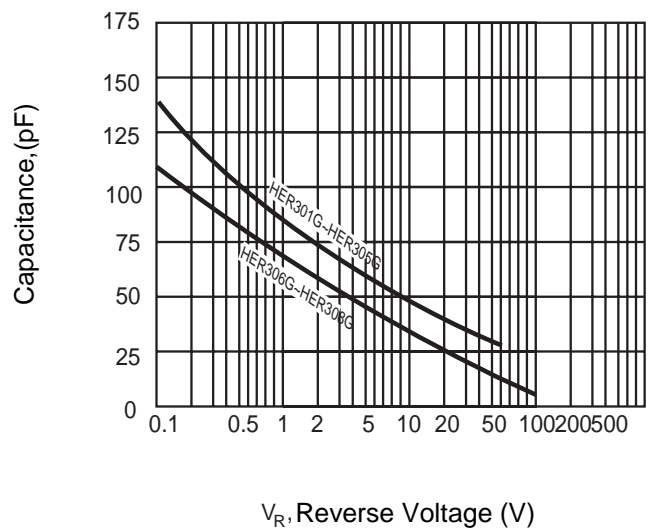
Capacitance,(pF) vs V_R, Reverse Voltage (V)

HER301G-HER305G

HER306G-HER308G

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