

### Features

- Halogen Free Available Upon Request By Adding Suffix "-HF"
- Glass Passivated Chip Junction
- Epoxy Meets UL 94 V-0 Flammability Rating
- Lead Free Finish/RoHS Compliant (Note 1)("P" Suffix Designates RoHS Compliant. See Ordering Information)

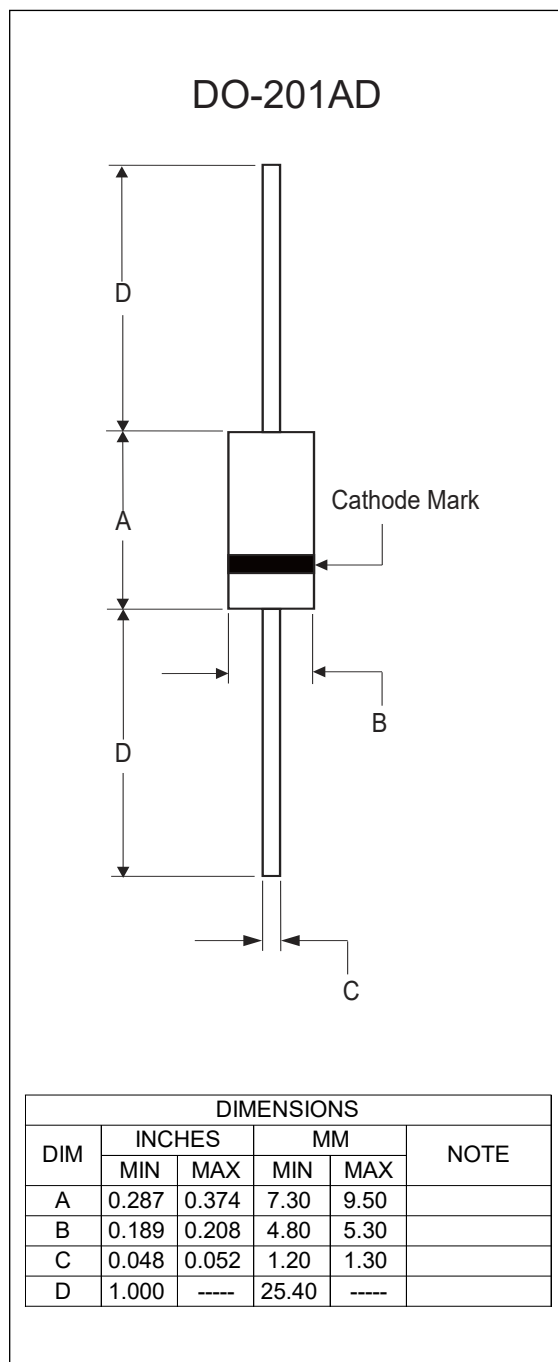
### Maximum Ratings @ 25°C (Unless Otherwise Specified)

Parameter	Symbol	Value								Unit
		HER301G	HER302G	HER303G	HER304G	HER305G	HER306G	HER307G	HER308G	
Peak Repetitive Reverse Voltage	$V_{RRM}$									V
Working Peak Reverse Voltage	$V_{RWM}$	50	100	200	300	400	600	800	1000	
DC Blocking Voltage	$V_R$									
RMS Reverse Voltage	$V_{RMS}$	35	70	140	210	280	420	560	700	V
Average Rectified Forward Current @ $T_L=75^\circ\text{C}$	$I_{F(AV)}$	3								A
Non-Repetitive Peak Surge Current @ 8.3ms Half Sine Wave	$I_{FSM}$	125								A
Non-Repetitive Peak Surge Current @ 1ms Square Wave		250								
Current Squared Time @ $1\text{ms} \leq t \leq 8.3\text{ms}$	$I^2t$	64.8								$\text{A}^2\text{s}$

**3 Amp  
High Efficient  
Rectifier  
50 to 1000 Volts**

### Marking code

Part Number	Marking Code
HER301G	HER301G
HER302G	HER302G
HER303G	HER303G
HER304G	HER304G
HER305G	HER305G
HER306G	HER306G
HER307G	HER307G
HER308G	HER308G



### Internal Structure

Pin	Description	Simplified Outline	Graphic Symbol
1	Cathode	<p>XXXXX: Marking Code</p>	
2	Anode		

Note: 1. High temperature solder exemption applied, see EU directive annex 7a.

## Thermal characteristics

Symbol	Parameter	Conditions	Min	Typ	Max	Unit
$T_J$	Operating Junction Temperature Range		-55		150	°C
$T_{stg}$	Storage Temperature Range		-55		150	°C
$R_{th(J-L)}$	Thermal Resistance from Junction to Lead	Note 1		20		°C/W
$R_{th(J-A)}$	Thermal Resistance from Junction to Ambient	Note 1		45		°C/W

Note:

1. Thermal Resistance from junction to lead and from junction to ambient with 0.375" (9.5 mm) Lead Length.

## Electrical Characteristics @ 25°C Unless Otherwise Specified

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Forward Voltage HER301G ~HER304G HER305G HER306G ~HER308G	$V_F$	$I_F=3A; T_J=25^\circ C$			0.95 1.30 1.70	V
Reverse Current	$I_R$	at Rated $V_R; T_J=25^\circ C$ at Rated $V_R; T_J=125^\circ C$			10 200	$\mu A$
Reverse Recovery Time HER301G ~HER305G HER306G ~HER308G	$t_{rr}$	$I_F=0.5A; I_R=1.0A;$ $I_{rr}=0.25A; T_J=25^\circ C$			50 75	ns
Junction Capacitance HER301G ~HER304G HER305G HER306G ~HER308G	$C_J$	$V_R=4V; f=1MHz; T_J=25^\circ C$		65 43 35		pF

**Curve Characteristics**

Fig. 1 - Forward Current Derating Curve

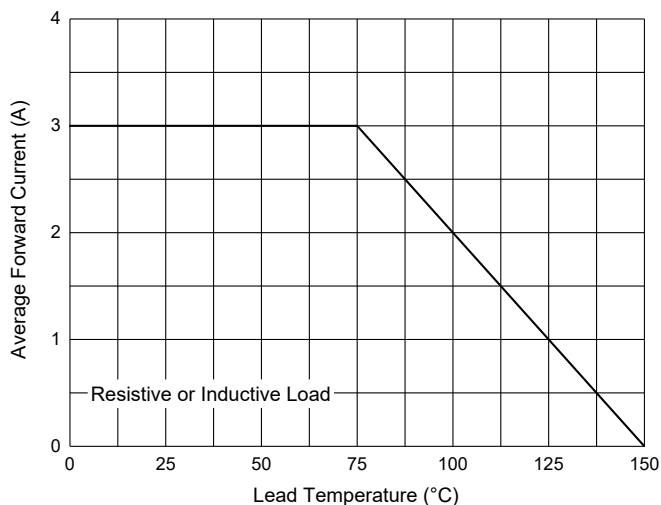


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

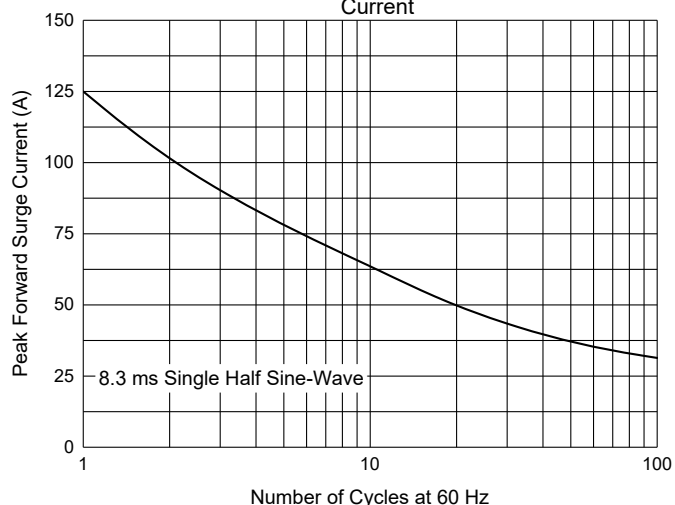


Fig. 3 - Typical Forward Characteristics

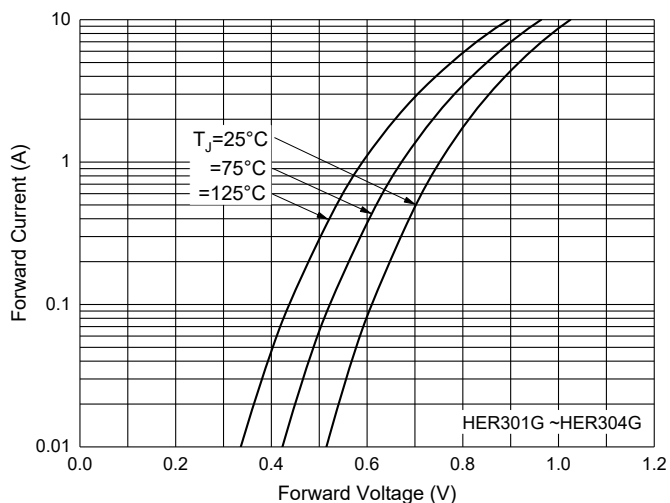


Fig. 4 - Typical Forward Characteristics

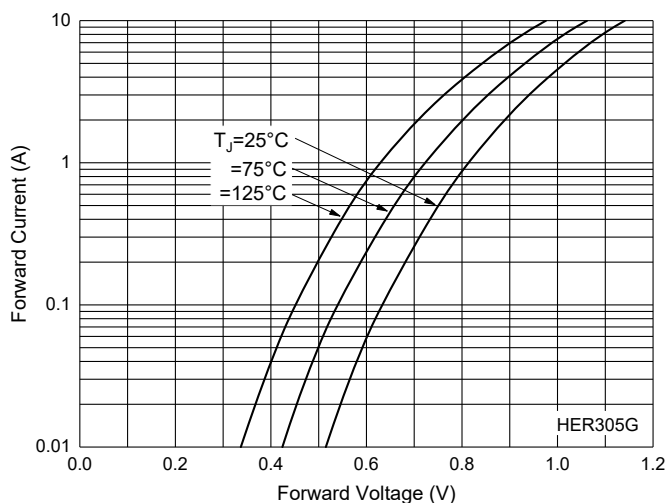


Fig. 5 - Typical Forward Characteristics

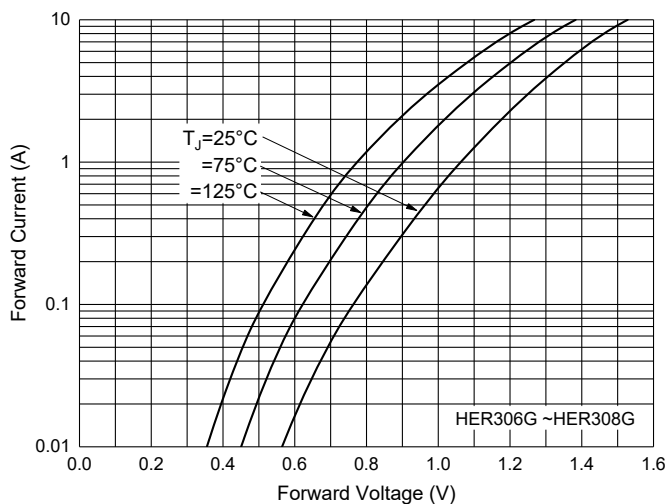
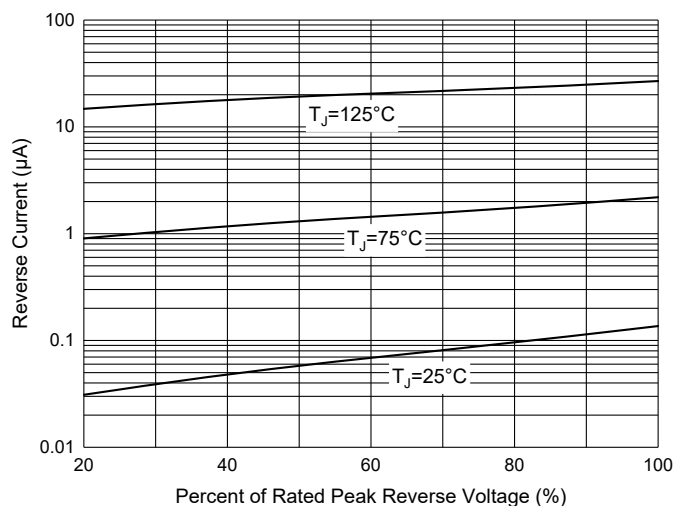
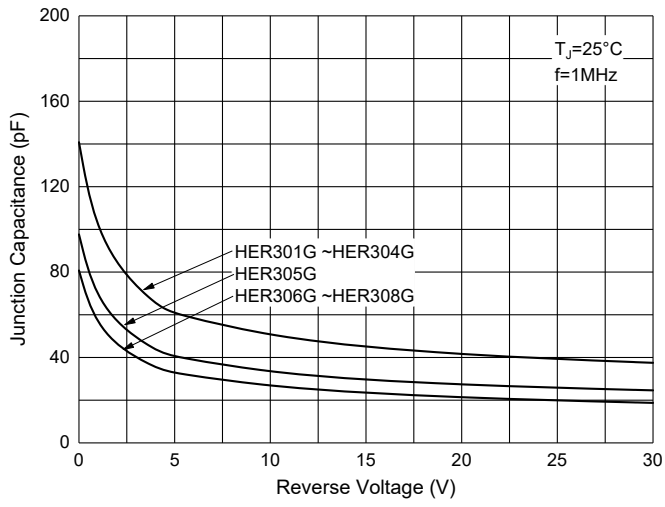


Fig. 6 - Typical Reverse Leakage Characteristics



## Curve Characteristics

Fig. 7 - Typical Capacitance Characteristics



## Ordering Information

Device	Packing
Part Number-TP	Tape&Reel: 1.2Kpcs/Reel
Part Number-AP	Ammo Packing: 1.2Kpcs/Ammo Box
Part Number-BP	Bulk: 500pcs/Box, 12Kpcs/Carton

Note : Adding "-HF" Suffix For Halogen Free, eg. Part Number-TP-HF

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