

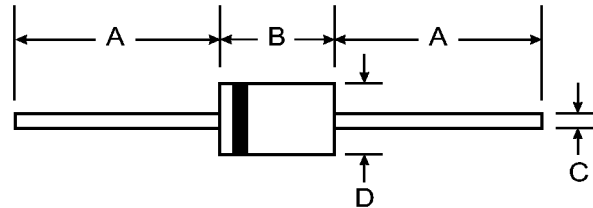


# HER301 - HER305

## 3.0A HIGH EFFICIENCY RECTIFIER

### Features

- Low Power Loss, High Efficiency
- Low Leakage
- Low Forward Voltage Drop
- High Current Capability
- High Speed Switching
- High Surge Current Rating
- High Reliability
- Plastic Material - UL Flammability Classification 94V-0



### Mechanical Data

- Case: Molded Plastic
- Terminals: Plated Axial Leads, Solderable per MIL-STD-202, Method 208
- Polarity: Color Band Denotes Cathode
- Approx. Weight: 1.2 grams

DO-201AD		
Dim	Min	Max
A	25.4	—
B	—	9.5
C	1.2	1.3
D	4.8	5.2
All Dimensions in mm		

### Maximum Ratings and Electrical Characteristics

Ratings at 25° C ambient temperature unless otherwise specified.  
Single phase, half wave, 60Hz, resistive or inductive load.

Characteristic	Symbol	HER301	HER302	HER303	HER304	HER305	Unit
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	50	100	200	300	400	V
Maximum RMS Voltage	$V_{RMS}$	35	70	140	210	280	V
Maximum DC Blocking voltage	$V_{DC}$	50	100	200	300	400	V
Maximum Average Forward Rectified Current 9.5mm Lead Length @ $T_A=50^{\circ}C$	$I_{(AV)}$	3.0					A
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	$I_{FM}$	125					A
Maximum Instantaneous Forward Voltage at 3.0 A DC	$V_F$	1.1					V
Maximum DC Reverse Current at Rated DC Blocking Voltage @ $T_A=25^{\circ}C$	$I_R$	10					$\mu A$
Maximum Full Load Reverse Current Full Cycle Average 9.5mm Lead Length @ $T_C=55^{\circ}C$	$I_R$	150					$\mu A$
Maximum Reverse Recovery Time (Note 1)	$T_{RR}$	50					nS
Typical Junction Capacitance (Note 2)	$C_J$	70					pF
Operating and Storage Temperature Range	$T_J, T_{STG}$	-65 to +150					$^{\circ}C$

- Notes: 1. Reverse Recovery Test Conditions:  $I_F=0.5 A$ ,  $I_R=1.0 A$ ,  $I_{RR}=0.25A$   
2. Measured at 1 MHz and applied reverse voltage of 4.0 volts.

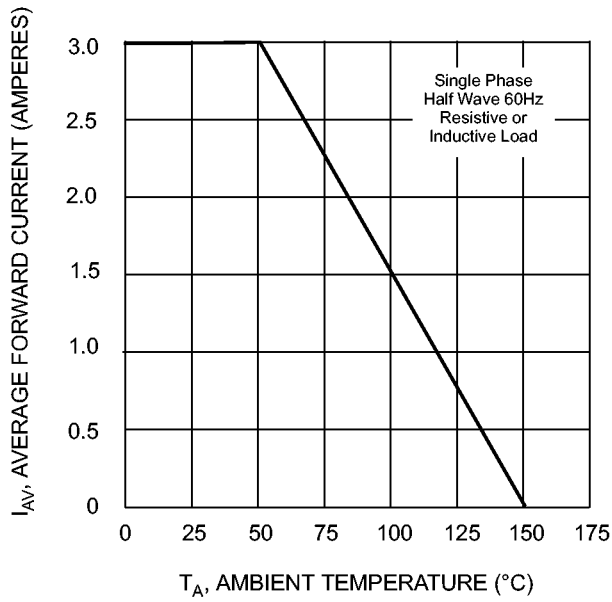


Fig. 1, Typical Forward Current Derating Curve

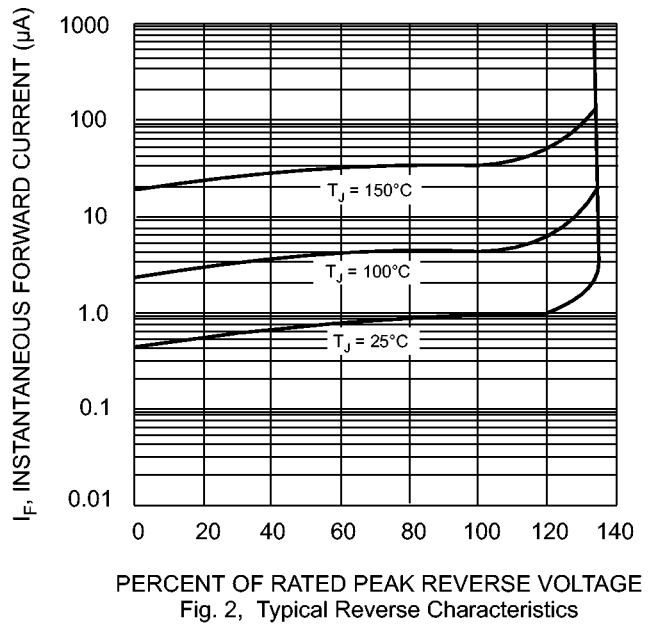


Fig. 2, Typical Reverse Characteristics

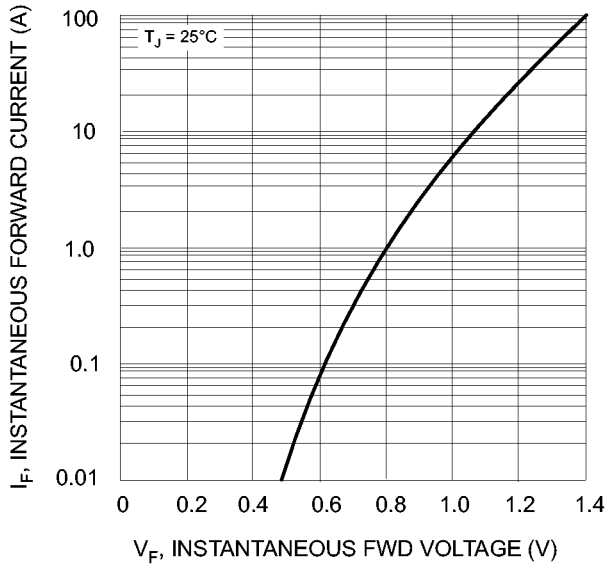


Fig. 3, Typ. Instantaneous Forward Characteristics

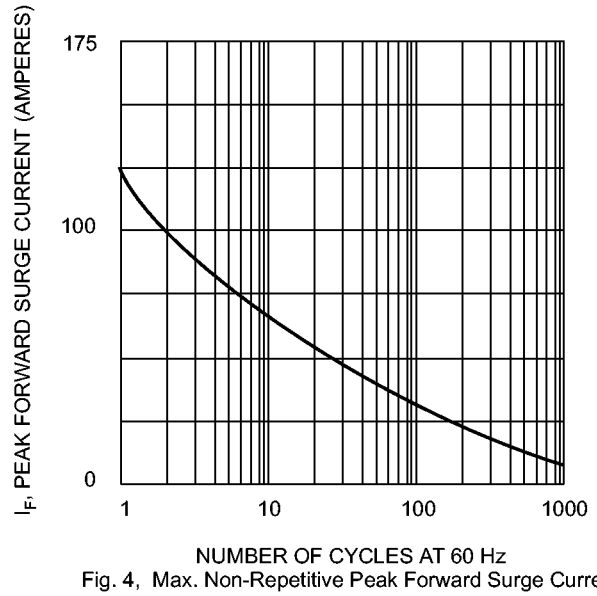


Fig. 4, Max. Non-Repetitive Peak Forward Surge Current

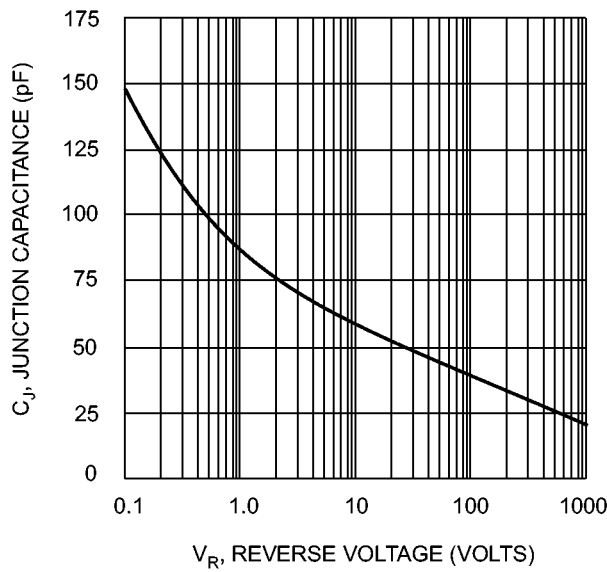


Fig. 5, Typical Junction Capacitance