

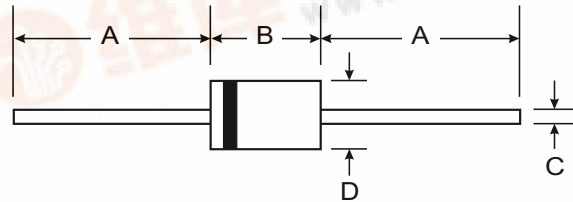


# HER101 - HER106

## 1.0A HIGH EFFICIENCY RECTIFIER

### Features

- Low Leakage
- Low Forward Voltage Drop
- High Current Capability
- High Speed Switching
- Plastic Material: UL Flammability Classification Rating 94V-0



### Mechanical Data

- Case: DO-41, Molded Plastic
- Terminals: Plated Axial Leads, Solderable per MIL-STD-202, Method 208
- Polarity: Color Band Denotes Cathode
- Mounting Position: Any
- Weight: 0.35 grams (approx.)

DO-41		
Dim	Min	Max
A	25.4	—
B	4.1	5.2
C	0.71	0.86
D	2.0	2.7
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	HER 101	HER 102	HER 103	HER 104	HER 105	HER 106	Units
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	50	100	200	300	400	600	V
Maximum RMS Voltage	$V_{RMS}$	35	70	140	210	280	420	V
Maximum DC Blocking voltage	$V_{DC}$	50	100	200	300	400	600	V
Maximum Average Forward Rectified Current 9.5mm Lead Length @ $T_A = 50^\circ\text{C}$	$I_{(AV)}$	1.0						A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	$I_{FM}$	30						A
Maximum Instantaneous Forward Voltage @ 1.0A DC	$V_F$	1.1					1.75	V
Maximum DC Reverse Current at Rated DC Blocking Voltage	$I_R$	5.0						$\mu\text{A}$
Maximum DC Reverse Current at Rated DC Blocking Voltage @ $T_A = 150^\circ\text{C}$	$I_R$	100						$\mu\text{A}$
Maximum Reverse Recovery Time (Note 1)	$t_{rr}$	50					100	ns
Typical Junction Capacitance (Note 2)	$C_j$	20						pF
Operating and Storage Temperature Range	$T_j, T_{STG}$	-65 to +150						$^\circ\text{C}$

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



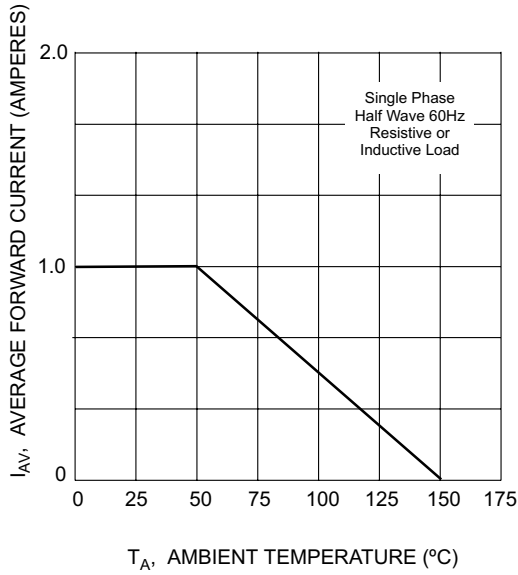


Fig. 1 Typical Forward Current Derating Curve

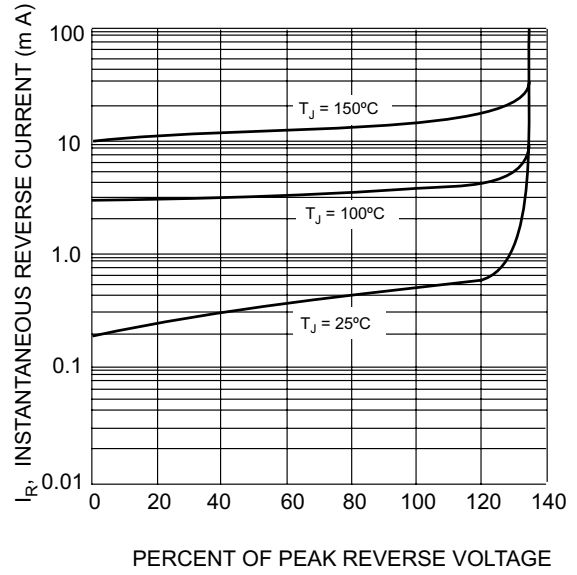


Fig. 2 Typical Reverse Characteristics

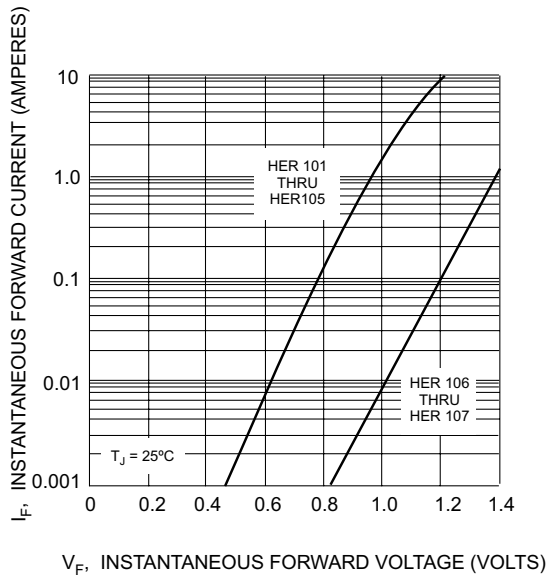


Fig. 3 Typical Instantaneous Forward Characteristics

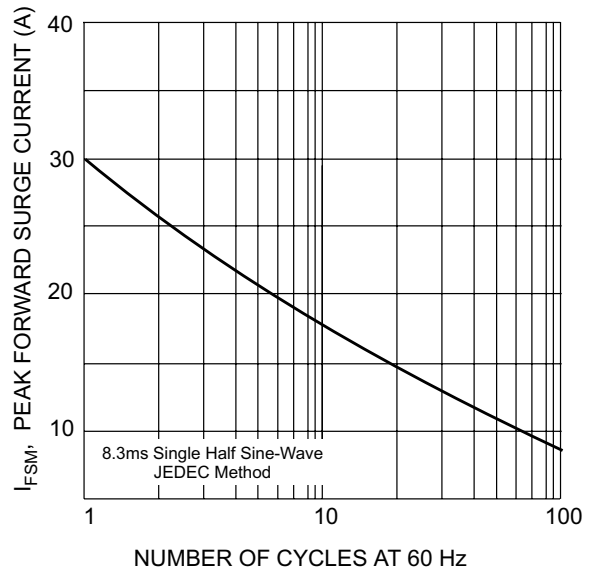


Fig. 4 Max Non-Repetitive Peak Fwd Surge Current (A)

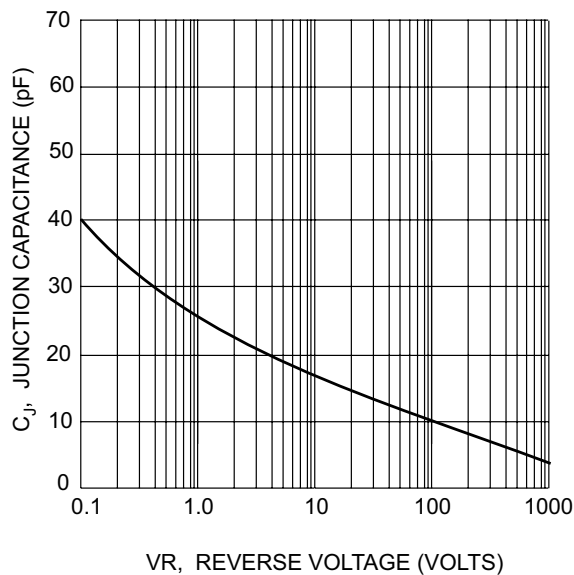


Fig. 5 Typical Junction Capacitance