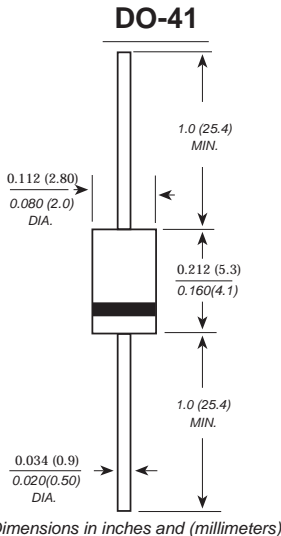


# HER101 THRU HER108

## HIGH EFFICIENCY RECTIFIERS

Reverse Voltage - 50 to 1000 Volts    Forward Current - 1.0 Ampere



### FEATURES

- ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆ High speed switching for high efficiency
- ◆ Low reverse leakage
- ◆ High forward surge current capability
- ◆ High temperature soldering guaranteed: 250°C/10 seconds, 0.375" (9.5mm) lead length, 5 lbs. (2.3kg) tension

### MECHANICAL DATA

**Case:** JEDEC DO-41 molded plastic body  
**Terminals:** Plated axial leads, solderable per MIL-STD-750, Method 2026  
**Polarity:** Color band denotes cathode end  
**Mounting Position:** Any

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

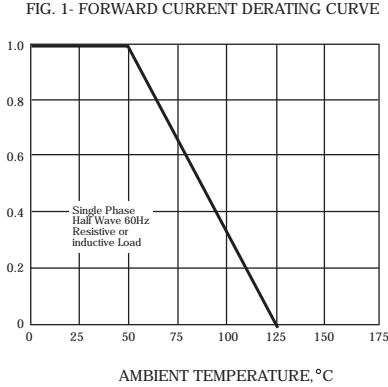
Ratings at 25°C ambient temperature unless otherwise specified.  
 Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

	SYMBOLS	HER 101	HER 102	HER 103	HER 104	HER 105	HER 106	HER 107	HER 108	UNITS
Maximum repetitive peak reverse voltage	$V_{RRM}$	50	100	200	300	400	600	800	1000	VOLTS
Maximum RMS voltage	$V_{RMS}$	35	70	140	210	280	420	560	700	VOLTS
Maximum DC blocking voltage	$V_{DC}$	50	100	200	300	400	600	800	1000	VOLTS
Maximum average forward rectified current 0.375" (9.5mm) lead length at $T_A=50^\circ\text{C}$	$I_{(AV)}$	1.0								Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	30.0								Amps
Maximum instantaneous forward voltage at 1.0A	$V_F$	1.0		1.3		1.70				Volts
Maximum DC reverse current $T_A=25^\circ\text{C}$ at rated DC blocking voltage $T_A=100^\circ\text{C}$	$I_R$	5.0 100.0								$\mu\text{A}$
Maximum reverse recovery time (NOTE 1)	$t_{rr}$	50				75				ns
Typical junction capacitance (NOTE 2)	$C_J$	15.0				12.0				pF
Typical thermal resistance (NOTE 3)	$R_{\theta JA}$	50.0								$^\circ\text{C/W}$
Operating junction and storage temperature range	$T_J, T_{STG}$	-55 to +125								$^\circ\text{C}$

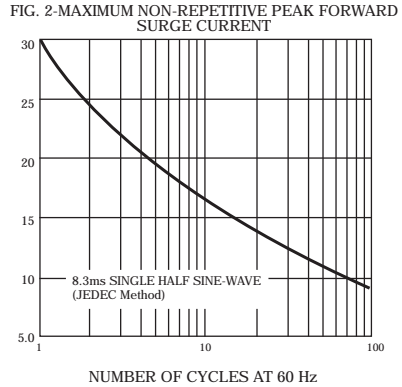
- Note:** 1. Reverse recovery condition  $I_F=0.5\text{A}, I_R=1.0\text{A}, I_{rr}=0.25\text{A}$   
 2. Measured at 1MHz and applied reverse voltage of 4.0V D.C.  
 3. Thermal resistance from junction to ambient at 0.375" (9.5mm) lead length, P.C.B. mounted

# RATINGS AND CHARACTERISTIC CURVES HER101 THRU HER108

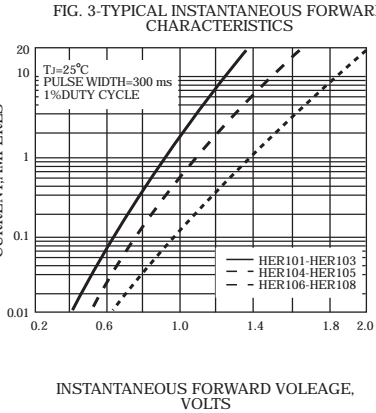
AVERAGE FORWARD RECTIFIED CURRENT,  
AMPERES



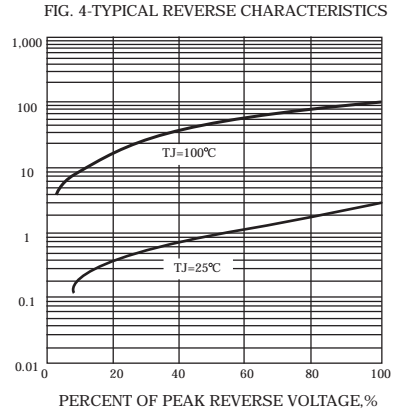
PEAK FORWARD SURGE CURRENT,  
AMPERES



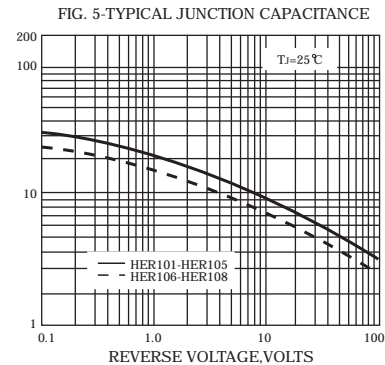
INSTANTANEOUS FORWARD  
CURRENT, AMPERES



INSTANTANEOUS REVERSE CURRENT,  
MICROAMPERES



JUNCTION CAPACITANCE, pF



TRANSIENT THERMAL IMPEDANCE,  
°C/W

