



HER101 THRU HER108

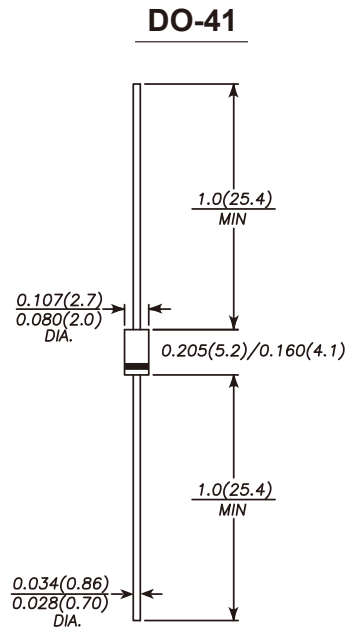
1.0 AMP High Efficiency Fast Recovery Rectifiers

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: 260°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
- Weight:** 0.012 ounce, 0.34 grams



Dimensions in inches and (millimeters)

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

- Note:** 1. Reverse recovery condition $I_F=0.5A, I_R=1.0A, I_{rr}=0.25A$
2. Measured at 1MHz and applied reverse voltage of 4.0V D.C.



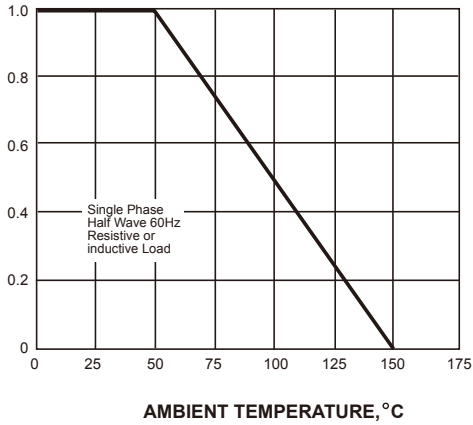


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1.0 AMP High Efficiency Fast Recovery Rectifiers

AVERAGE FORWARD RECTIFIED CURRENT,
AMPERES

FIG. 1- FORWARD CURRENT DERATING CURVE



PEAK FORWARD SURGE CURRENT,
AMPERES

FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

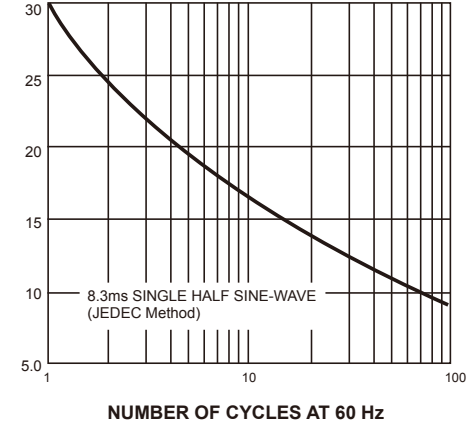
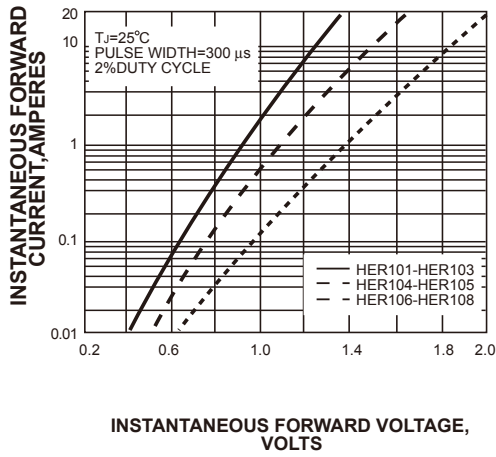


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



INSTANTANEOUS REVERSE CURRENT,
MICROAMPERES

FIG. 4-TYPICAL REVERSE CHARACTERISTICS

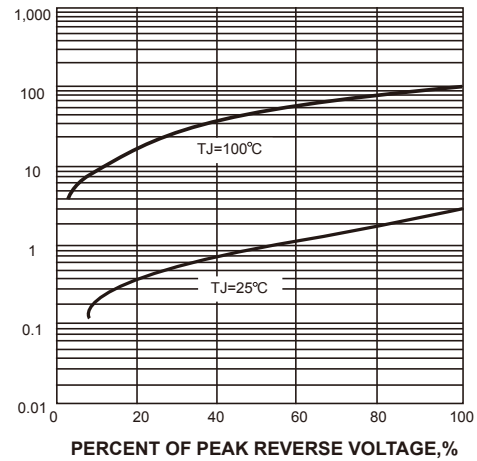
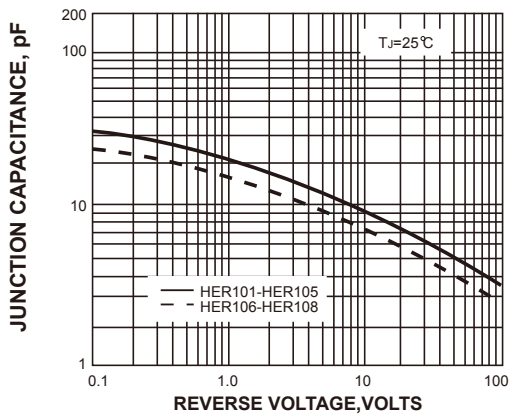


FIG. 5-TYPICAL JUNCTION CAPACITANCE



TRANSIENT THERMAL IMPEDANCE,
 $^\circ\text{C/W}$

FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE

