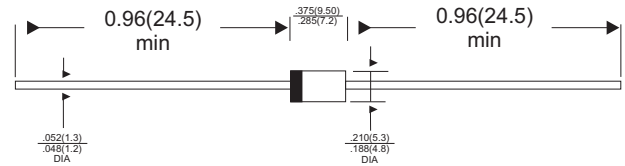


FEATURES

- High efficiency, low VF
- High surge current capability
- High reliability
- High surge current capability
- For use in low voltage, high frequency inverter, free wheeling, and polarity protection application.

NOT RECOMMENDED FOR
NEW DESIGNS, USE UF3001-UF3007



DO-27

Dimensions in inches and (millimeters)

MECHANICAL DATA

- Molded plastic body (UL 94 V-0 Rated)
- Polarity: Color band denotes cathode
- High temperature soldering 260°C / 10 seconds
- Lead: Pure tin plated, solderable per MIL-STD-202 method 208
- Weight: 1.2 grams

MAXIMUM RATINGS & ELECTRICAL CHARACTERISTICS

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

Parameter	Symbol	HER 301	HER 302	HER 303	HER 304	HER 305	HER 306	HER 307	HER 308	Unit
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 @ Ta = 50°C	I _(AV)	3.0								A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	I _{FSM}	150								A
Maximum Instantaneous Forward Voltage @1.0A	V _F	1.0		1.3		1.7			V	
Maximum DC Reverse Current @ TA = 25°C At rated DC blocking voltage @ TA = 125°C	I _R	5 50								μA
Reverse Recovery Time (Note 1)	T _{rr}	50					75			nS
Junction Thermal Resistance (Note 2)	R _{θJA}	20								°C / W
Operating Temperature Range	T _J	-65 to +150								°C
Storage Temperature Range	T _{STG}	-65 to +150								°C

NOTE: 1. Reverse Recovery Test conditions: I_F = 0.5A, I_R = 1.0A, I_{RR} = 0.25A.
2. Measured on P.C. Board with 16mm x 16mm Copper Pad Areas.

RATING & CHARACTERISTIC CURVES

FIG. 1-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

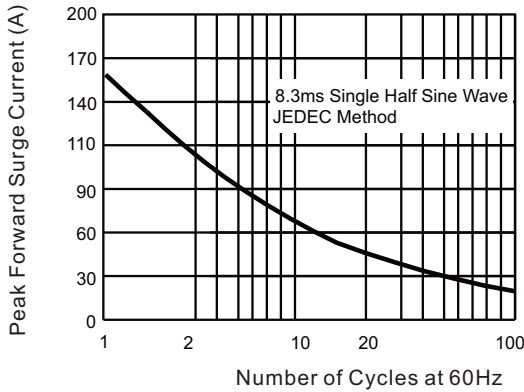


FIG. 2-MAXIMUM CURRENT DERATING CURVE

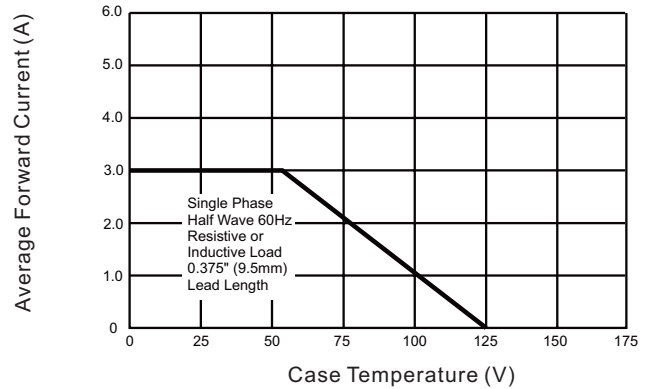


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

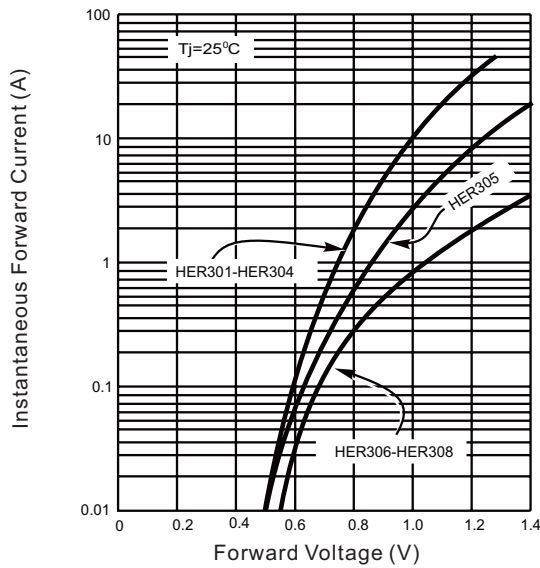


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

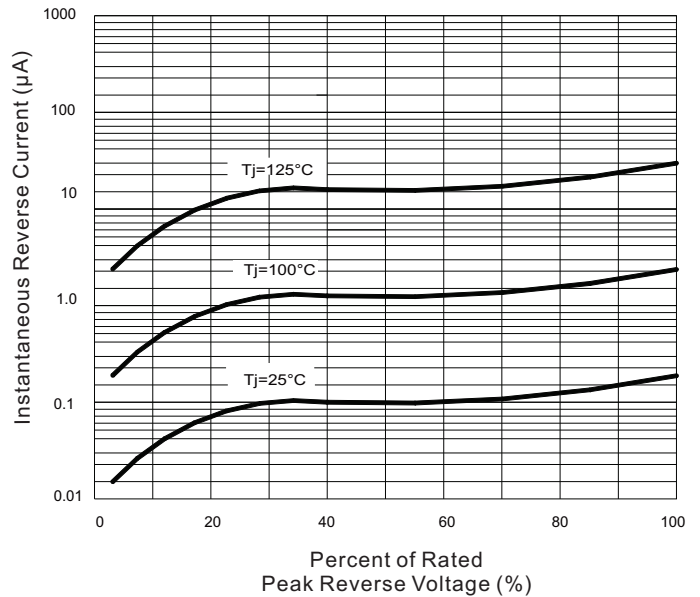


FIG. 5-TYPICAL JUNCTION CAPACITANCE

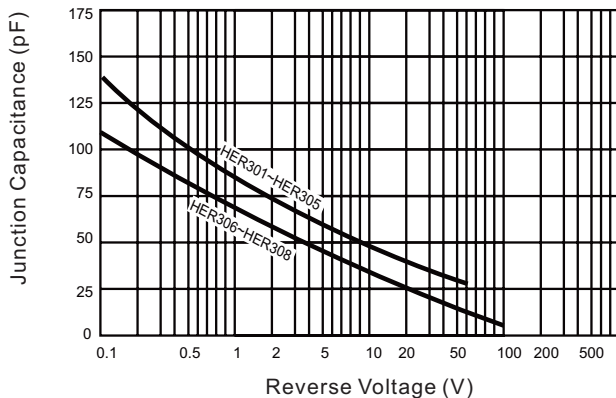


FIG. 6-REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

