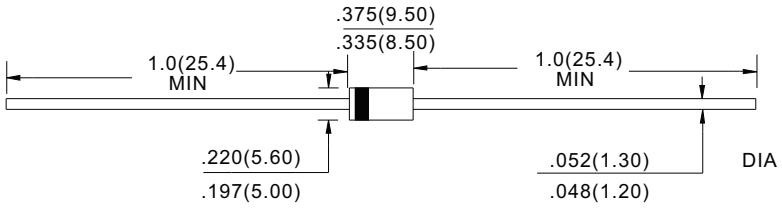
HIGH EFFICIENCY RECTIFIER
HER601 Thru HER608

6.0 Amps

RoHS

FEATURES

- Low power loss, high efficiency
- High surge current capability
- High reliability
- High surge current capability
- For use in switching power supply free wheeling, and polarity protection application.



DO-201AD
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 601	HER 602	HER 603	HER 604	HER 605	HER 606	HER 607	HER 608	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	$I_{F(AV)}$	6.0								A
Peak Forward Surge (Non-Repetitive) Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	200								A
Maximum Instantaneous Forward Voltage @6.0A	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	5 150								μA
Reverse Recovery Time	T_{rr}	50					75			nS
Junction Thermal Resistance	$R_{\theta JA}$	20								℃ / W
Typical Junction CapacitanceJunction Thermal Resistance (Note)	C_J	100					65			pF
Operating Temperature Range	T_J	-55 to +125								℃
Storage Temperature Range	T_{STG}	-55 to +150								℃

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.

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RATING & CHARACTERISTIC CURVES

FIG.1-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

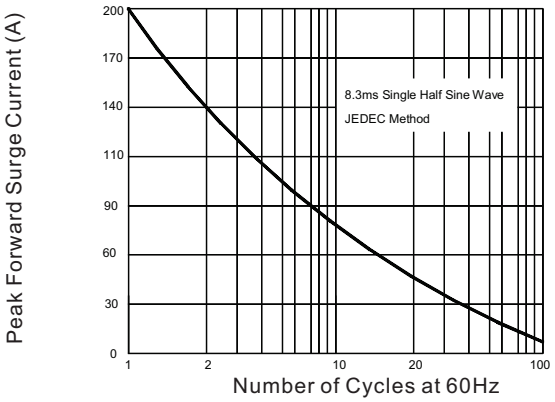


FIG.2-MAXIMUM CURRENT DERATING CURVE

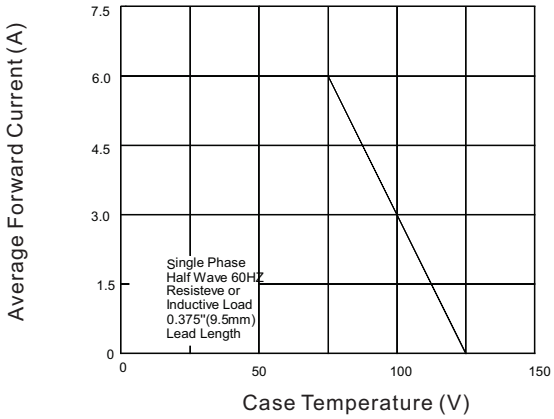


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

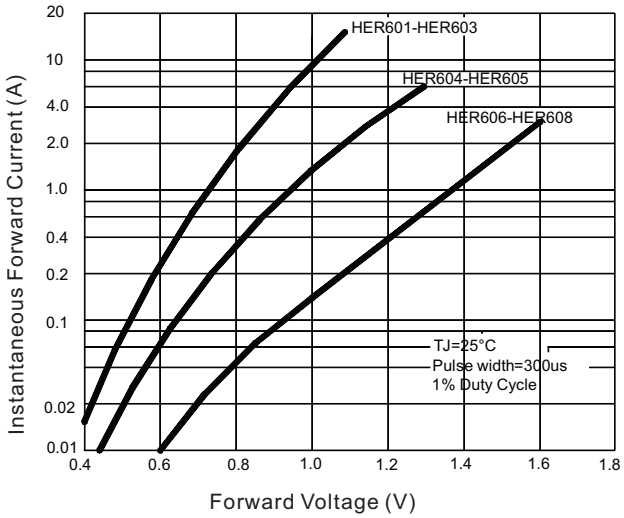


FIG.4-TYPICAL REVERSE CHARACTERISTICS

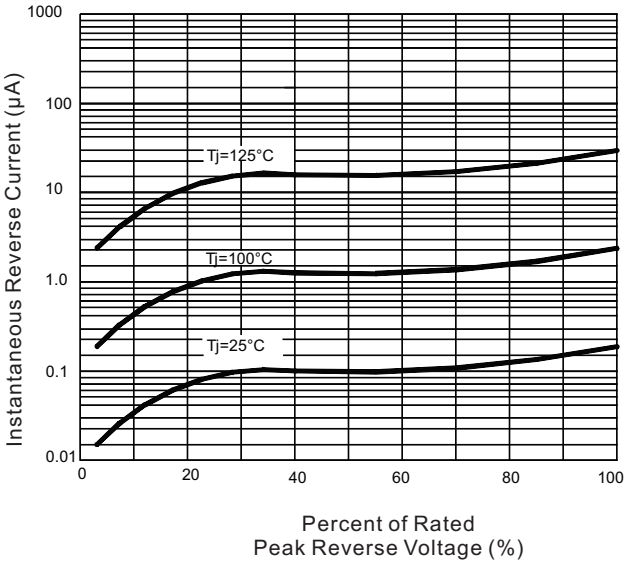
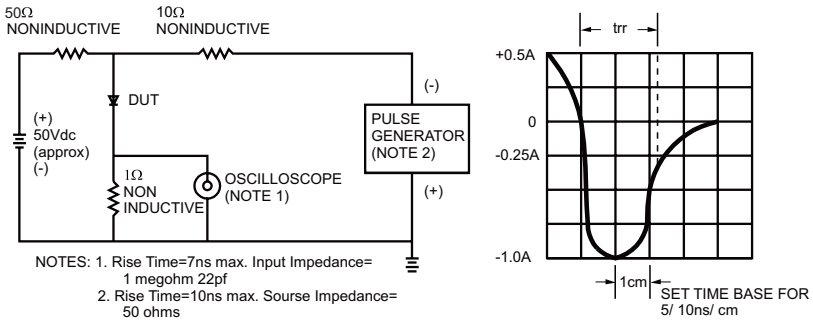


FIG.5-REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM



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