Green Products

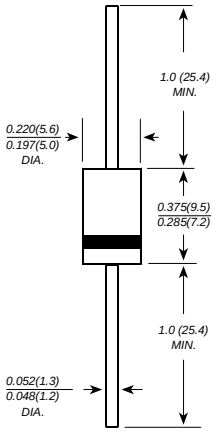
Data Sheet 4814, Rev. -

HER301-G THRU HER308-G

HIGH EFFICIENCY RECTIFIERS

Reverse Voltage - *50 to 1000 Volts* ***Forward Current -*** *3.0 Amperes*

DO-201AD



Dimensions in inches and (millimeters)

FEATURES

- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- High 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
- Green Products in Compliance with the R HS Directive

MECHANICAL DATA

Case: JEDEC DO-201AD molded plastic body
Terminals: Plated axial leads, solderable per MIL-STD-750, Method 2026
Polarity: Color band denotes cathode end
Mounting Position: Any
Weight:0.04 ounce, 1.10 grams

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

	SYMBOLS	HER 301-G	HER 302-G	HER 303-G	HER 304-G	HER 305-G	HER 306-G	HER 307-G	HER 308-G	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℃	$I_{(AV)}$	3.0								Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	200.0					150.0			Amps
Maximum instantaneous forward voltage at 3.0A	V_F	1.0			1.3		1.70			Volts
Maximum DC reverse current T_A=25℃ at rated DC blocking voltage T_A=100℃	I_R	5.0 150.0								μA
Maximum reverse recovery time (NOTE 1)	t_{rr}	50					70			ns
Typical junction capacitance (NOTE 2)	C_J	70.0					50			pF
Typical thermal resistance (NOTE 3)	$R_{\theta JA}$	20.0								°C/W
Operating junction and storage temperature range	T_J,T_{STG}	-65 to +150								°C

Note:1.Reverse recovery condition I_F=0.5A,I_R=1.0A,Irr=0.25A
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

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RATINGS AND CHARACTERISTIC CURVES HER301-G THRU HER308-G

FIG. 1- FORWARD CURRENT DERATING CURVE

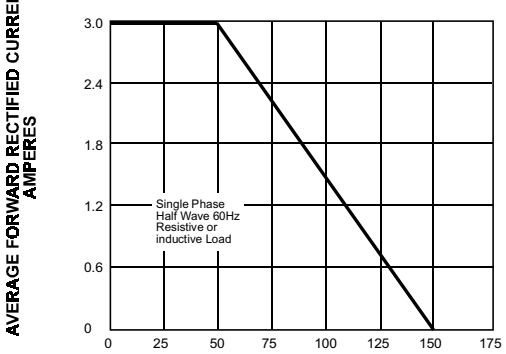

FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

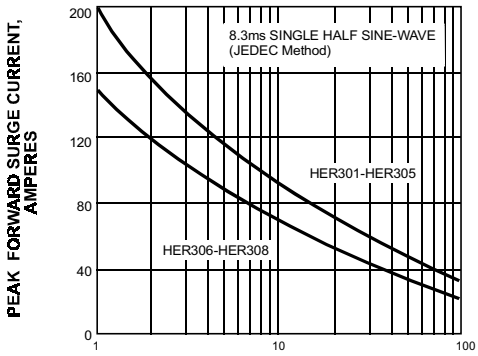

FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

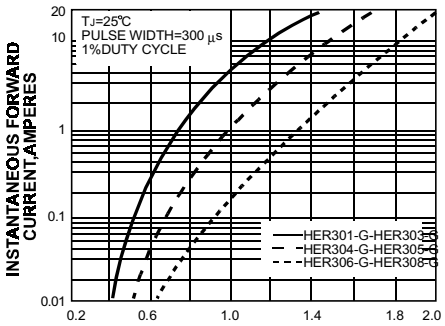

FIG. 4-TYPICAL REVERSE CHARACTERISTICS

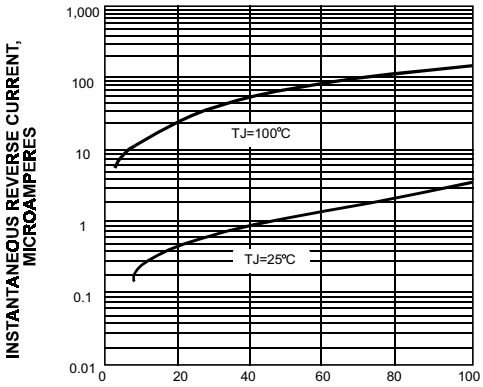

FIG. 5-TYPICAL JUNCTION CAPACITANCE

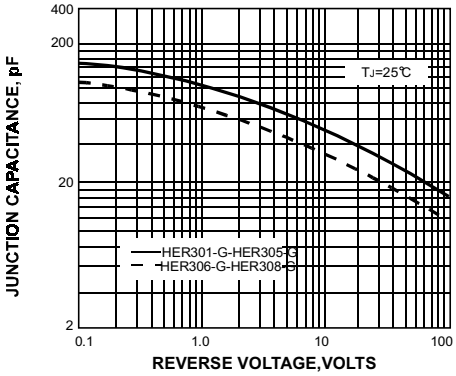

FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE