HER501 THRU HER508

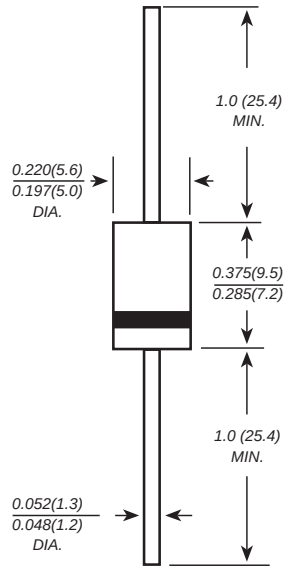
Reverse Voltage - 50 to 1000 Volts Forward Current - 5.0 Ampere

HIGH EFFICIENCY RECTIFIERS

Features

DO-201AD RoHS COMPLIANT

- 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



Dimensions in inches and (millimeters)

Mechanical Data

Case : JEDEC DO-201AD Molded plastic body
Terminals : Solder plated, solderable per MIL-STD-750,Method 2026
Polarity : Polarity symbol marking on body
Mounting Position : Any
Weight : 0.04 ounce, 1.10 grams

Maximum Ratings And Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwisespecified.

Single phase half-wave 60Hz,resistive or inductive load,for capacitive load current derate by 20%.

parameter	SYMBOLS	HER 501	HER 502	HER 503	HER 504	HER 505	HER 506	HER 507	HER 508	UNITS
Marking code		MDD HER 501	MDD HER 502	MDD HER 503	MDD HER 504	MDD HER 505	MDD HER 506	MDD HER 507	MDD HER 508	
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°C	$I_{(AV)}$	5.0								A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	200.0								A
Maximum instantaneous forward voltage at 5.0A	V_F	1.0			1.3		1.7			V
Maximum DC reverse current T_A=25°C at rated DC blocking voltage T_A=100°C	I_R	10.0 200.0								μA
Maximum reverse recovery time (NOTE 1)	t_{rr}	50					70			ns
Typical junction capacitance (NOTE 2)	C_J	100.0					65.0			pF
Typical thermal resistance (NOTE 3)	$R_{\theta JA}$	10.0								°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

FIG. 1- FORWARD CURRENT DERATING CURVE

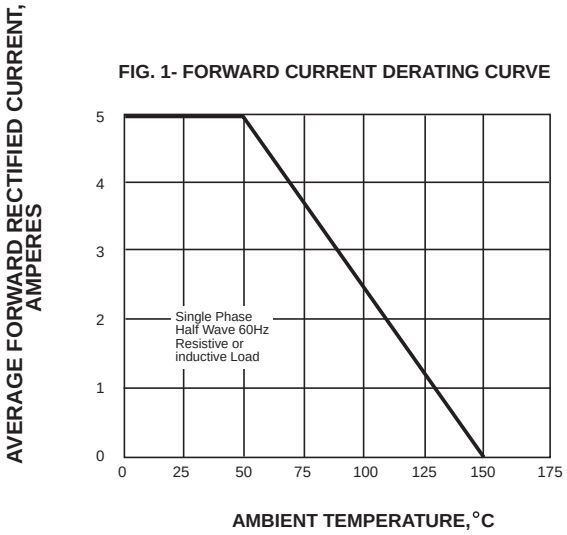


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

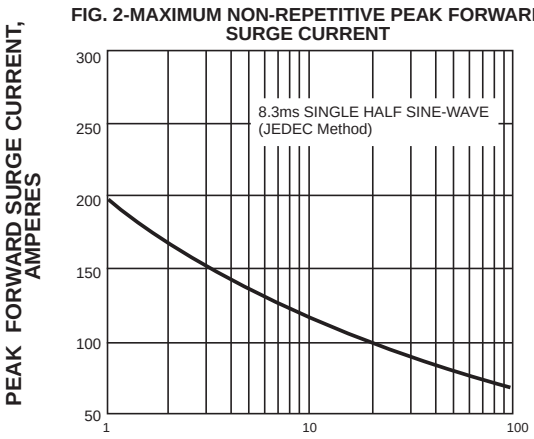


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

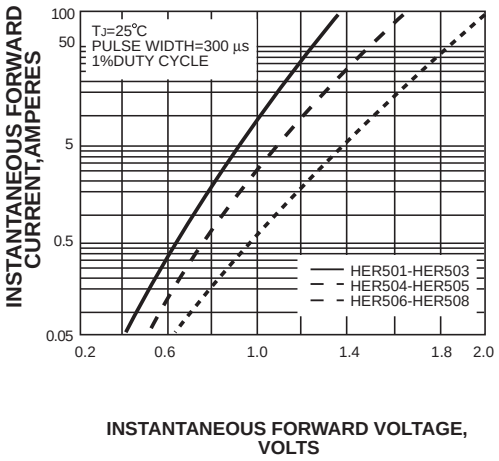


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

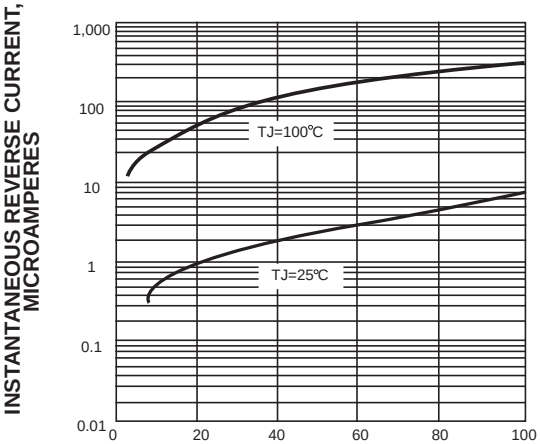


FIG. 5-TYPICAL JUNCTION CAPACITANCE

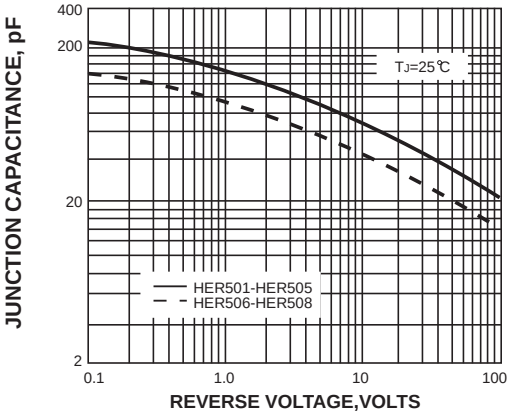
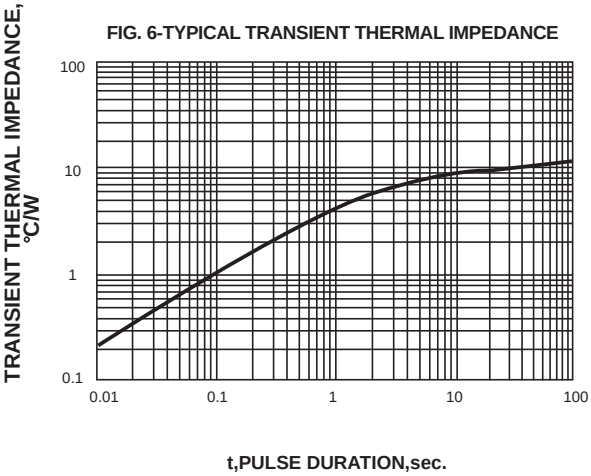


FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE



The curve above is for reference only.

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