

3.0Amp High Efficiency Rectifiers

HER301 ~ HER308

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:
250°C/10 seconds, 0.375" (9.5mm) lead length,
5 lbs. (2.3kg) tension

Mechanical Data

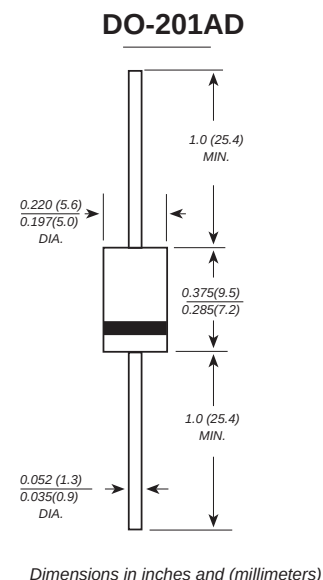
Case: JEDEC DO-27 molded plastic body

Terminals: Plated axial leads, solderable per MIL-STD-750, Method 2026

Polarity: Color band denotes cathode end

Mounting Position: Any

Weight : 0.04 ounce, 1.10grams



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 301	HER 302	HER 303	HER 304	HER 305	HER 306	HER 307	HER 308	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 TA=50°C	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 TA=25°C at rated DC blocking voltage TA=100°C	I _R	5.0 150.0								µA
Maximum reverse recovery time (NOTE 1)	t _{rr}	50					75			ns
Typical junction capacitance (NOTE 2)	C _J	70.0					50			pF
Typical thermal resistance (NOTE 3)	RθJA	20.0								°C/W
Operating junction and storage temperature range	T _J ,T _{STG}	-65 to +150								°C

Note: 1. Reverse recovery time test 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.

3. Thermal resistance from junction to ambient at 0.375" (9.5mm) lead length, P.C.B. mounted

Ratings And Characteristic Curves

HER301 THRU HER308

FIG. 1- FORWARD CURRENT DERATING CURVE

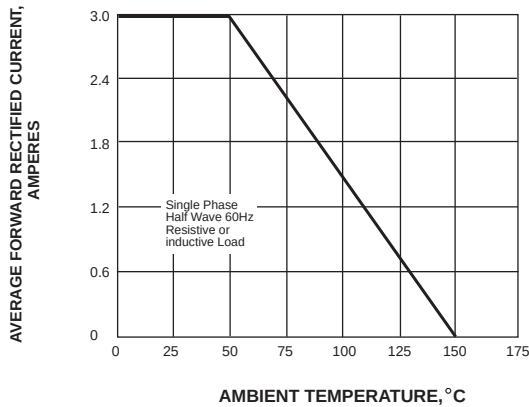


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

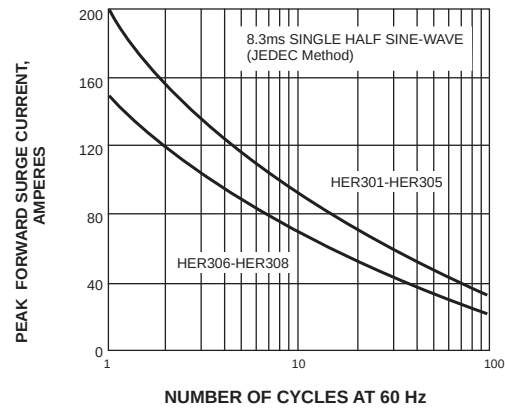


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

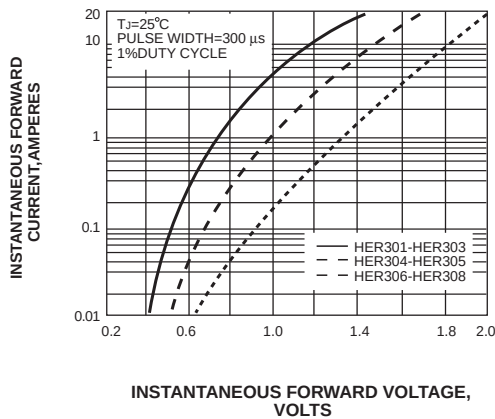


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

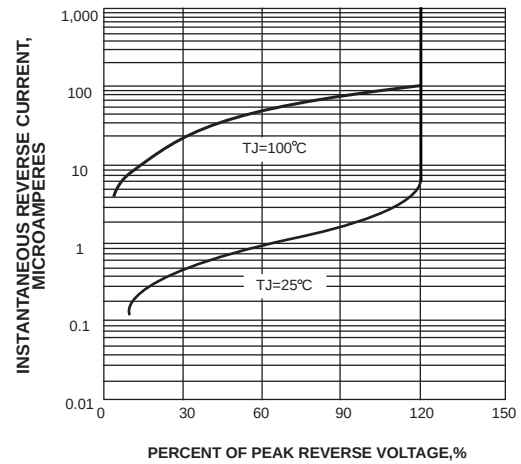


FIG. 5-TYPICAL JUNCTION CAPACITANCE

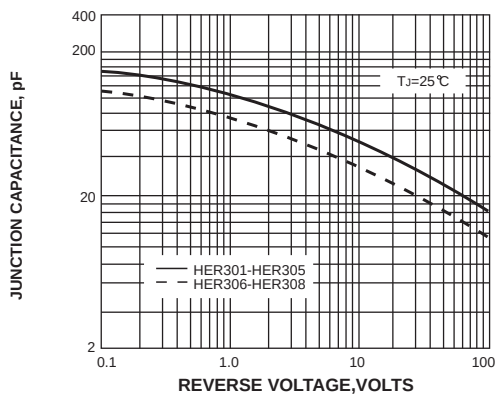


FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE

