

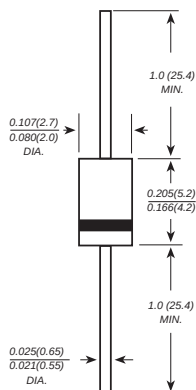


HER101S THRU HER108S

HIGH EFFICIENCY RECTIFIERS

Reverse Voltage - 50 to 1000 Volts Forward Current - 1.0 Ampere

A-405



Dimensions in inches and (millimeters)

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 A-405 molded plastic body
Terminals: Plated axial leads, solderable per MIL-STD-750, Method 2026
Polarity: Color band denotes cathode end
Mounting Position: Any
Weight: 0.008 ounce, 0.23 grams

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%.

MDD Catalog Number	SYMBOLS	HER 101S	HER 102S	HER 103S	HER 104S	HER 105S	HER 106S	HER 107S	HER 108S	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)	1.0								Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	30.0								Amps
Maximum instantaneous forward voltage at 1.0A	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	5.0 100.0								µA
Maximum reverse recovery time (NOTE 1)	t _{rr}	50					70			ns
Typical junction capacitance (NOTE 2)	C _J	15.0					12.0			pF
Typical thermal resistance (NOTE 3)	R _{θJA}	50.0								°C/W
Operating junction and storage temperature range	T _J ,T _{STG}	-65 to +150								°C

Note: 1. Reverse recovery condition $I_F=0.5\text{A}$, $I_R=1.0\text{A}$, $I_{rr}=0.25\text{A}$

2. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

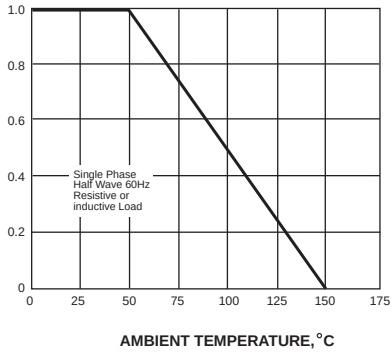
3. Thermal resistance from junction to ambient at 0.375" (9.5mm) lead length, P.C.B. mounted

MDD ELECTRONIC

RATINGS AND CHARACTERISTIC CURVES HER101S THRU HER108S

AVERAGE FORWARD RECTIFIED CURRENT,
AMPERES

FIG. 1- FORWARD CURRENT DERATING CURVE



PEAK FORWARD SURGE CURRENT,
AMPERES

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

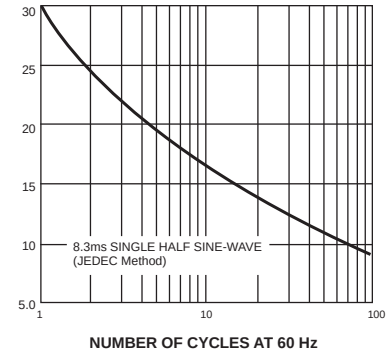
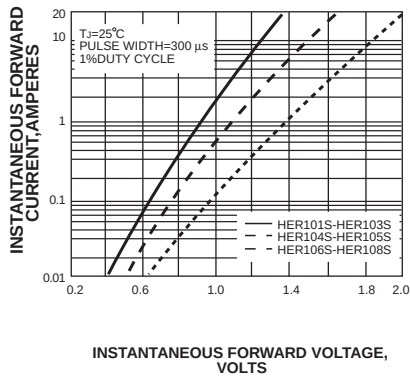


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



INSTANTANEOUS REVERSE CURRENT,
MICROAMPERES

FIG. 4-TYPICAL REVERSE CHARACTERISTICS

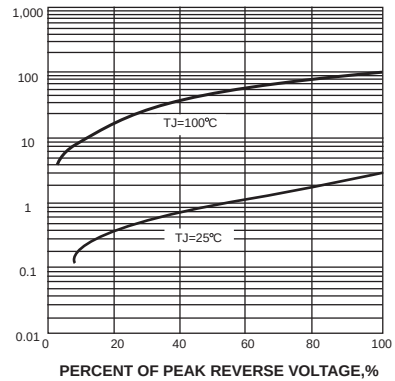
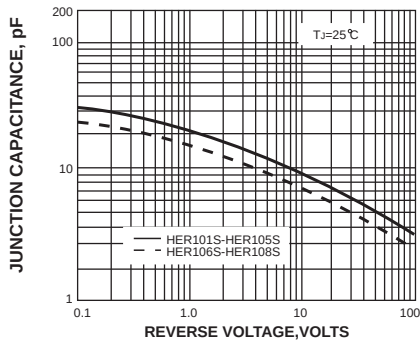


FIG. 5-TYPICAL JUNCTION CAPACITANCE



TRANSIENT THERMAL IMPEDANCE,
°C/W

FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE

