

HER60X SERIES

HIGH EFFICIENCY RECTIFIER

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HER601 THRU HER608

HIGH EFFICIENCY RECTIFIER



康 比 電 子
HORNBY ELECTRONIC

REVERSE VOLTAGE: 50 to 1000 VOLTS
FORWARD CURRENT: 6.0 AMPERE

FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O utilizing Flame Retardant Epoxy Molding Compound.
- Void-free Plastic in a R-6 package.
- 6.0 ampere operation at $T_A=55$ With no thermal runaway.
- Ultra Fast switching for high efficiency.
- Exceeds environmental standards of MIL-S-19500/228

MECHANICAL DATA

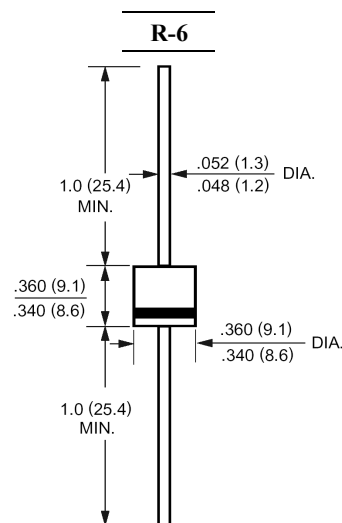
Case: Molded plastic, R-6

Terminals: Axial leads, solderable per MIL-STD-202, method 208 guaranteed

Polarity: Band denotes cathode

Mounting position: Any

Weight: 0.07ounce, 2.1gram



Dimensions in inches and (millimeters)

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, derate current by 20%.

	Symbols	HER601	HER602	HER603	HER604	HER605	HER606	HER607	HER608	Units
Maximum Recurrent 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 .375"(9.5mm) Lead Length at T _A =55	I _(AV)	6.0								Amp
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	I _{FSM}	200								Amp
Maximum Forward Voltage at 6.0A and T _A =25	V _F	1.0			1.3		1.7			Volts
Maximum Reverse Current at T _J =25 at Rated DC Blocking Voltage T _J =100	I _R	10.0 1000								uAmp
Typical Junction Capacitance (Note 1)	C _J	100					65			pF
Maximum Reverse Recovery Time (Note 2)	T _{RR}	50					75			nS
Typical Thermal Resistance (Note 3)	R _{θJA}	10								/W
Operating and Storage Temperature Range	T _J , T _{stg}	-55 to +150								

NOTES:

1- Measured at 1 MHz and applied reverse voltage of 4.0 VDC.

2- Reverse Recovery Test Conditions : $I_F=.5A$, $I_R=1A$, $I_{RR}=.25A$.

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- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

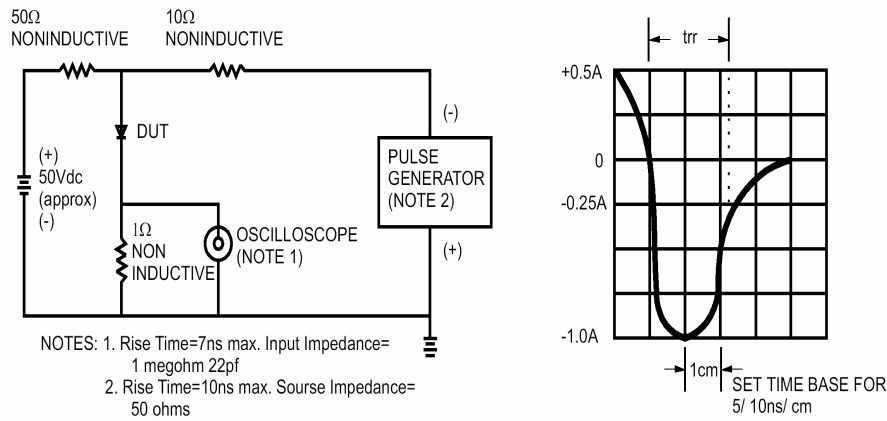


FIG.2- MAXIMUM AVERAGE FORWARD CURRENT DERATING

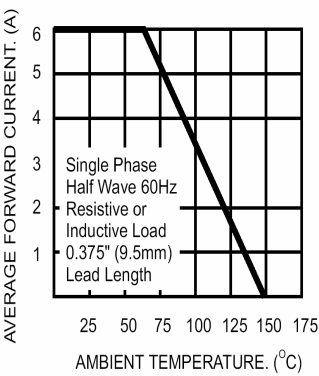


FIG.3- TYPICAL REVERSE CHARACTERISTICS

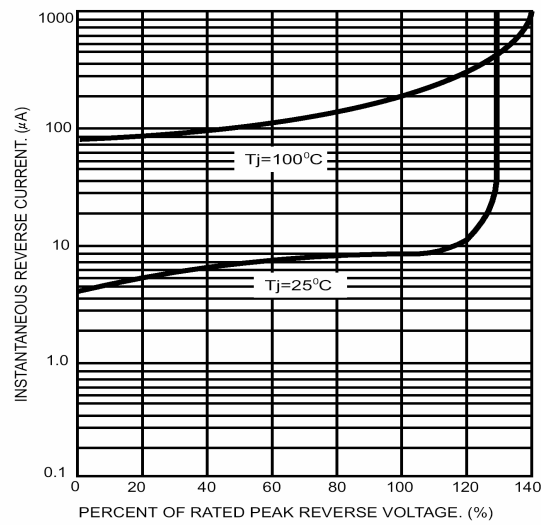


FIG.5- TYPICAL FORWARD CHARACTERISTICS

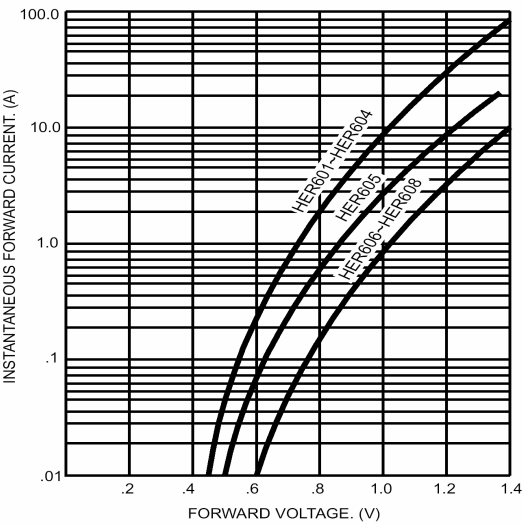


FIG.4- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

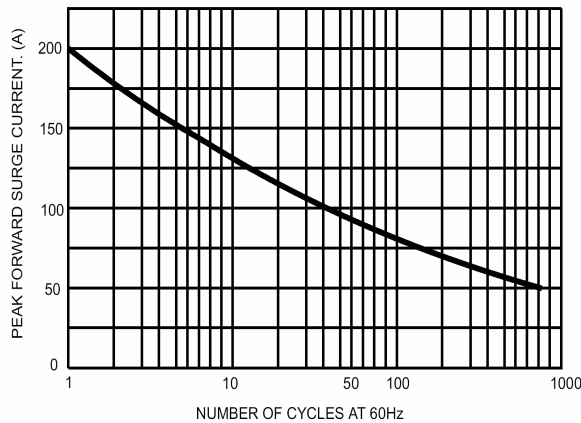


FIG.6- TYPICAL JUNCTION CAPACITANCE

