

HER601 - HER608

PRV : 50 - 1000 Volts

Io : 6.0 Amperes

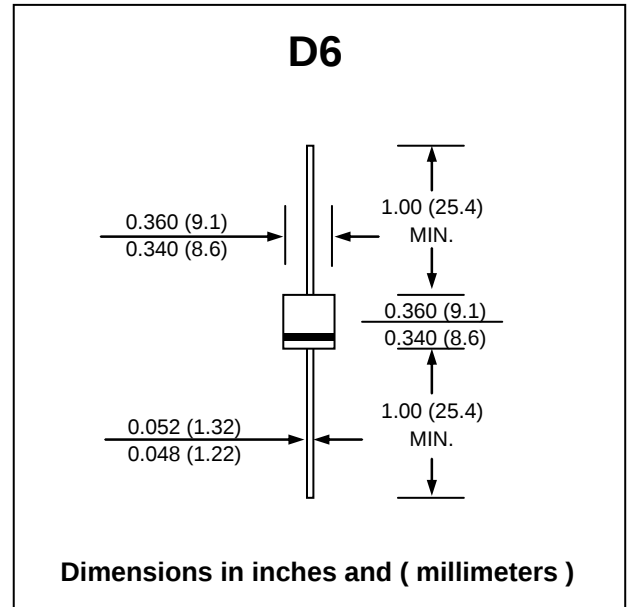
FEATURES :

- * High surge current capability
- * Low leakage current
- * Forward voltage drop
- * Low power loss
- * High efficiency
- * **Pb / RoHS Free**

MECHANICAL DATA :

- * Case : Void-free molded plastic body
- * Epoxy : UL94V-O rate flame retardant
- * Lead : Axial lead solderable per MIL-STD-202, Method 208 guaranteed
- * Polarity : Color band denotes cathode end
- * Mounting position : Any
- * Weight : 2.1 grams

HIGH EFFICIENT RECTIFIER DIODES



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25 °C ambient temperature unless otherwise specifie.
Single phase, half wave, 60 Hz, resistive or inductive load
For capacitive load, derate current by 20%

RATING	SYMBOL	HER 601	HER 602	HER 603	HER 604	HER 605	HER 606	HER 607	HER 608	UNIT
Maximum Recurrent 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 Current 0.375"(9.5mm) Lead Length Ta = 55 °C	I _{F(AV)}	6.0								A
Maximum Peak Forward Surge Current, 8.3ms Single half sine wave superimposed on rated load (JEDEC Method)	I _{FSM}	200								A
Maximum Forward Voltage at I _F = 6.0 A	V _F	1.1					1.7			V
Maximum DC Reverse Current Ta = 25 °C	I _R	10								μA
at Rated DC Blocking Voltage Ta = 100 °C	I _{R(H)}	50								μA
Maximum Reverse Recovery Time (Note 1)	T _{rr}	50					75			ns
Typical Junction Capacitance (Note 2)	C _J	50								pf
Junction Temperature Range	T _J	- 65 to + 150								°C
Storage Temperature Range	T _{STG}	- 65 to + 150								°C

Notes :

- (1) Reverse Recovery Test Conditions : $I_F = 0.5\text{ A}$, $I_R = 1.0\text{ A}$, $I_{rr} = 0.25\text{ A}$.
- (2) Measured at 1.0 MHz and applied reverse voltage of 4.0 Vdc

RATING AND CHARACTERISTIC CURVES (HER601 - HER608)

FIG.1 - REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

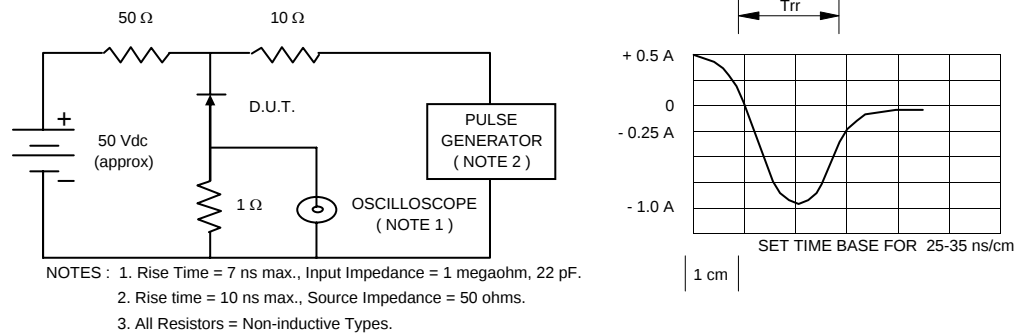


FIG.2 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

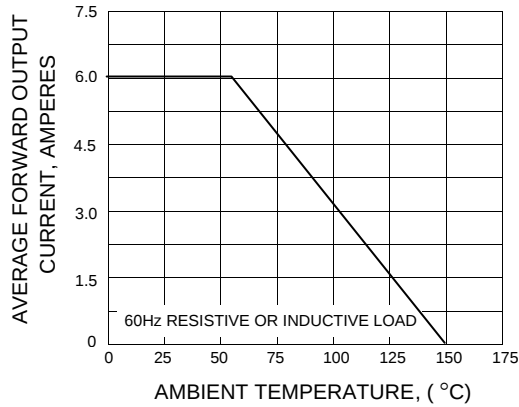


FIG.3 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

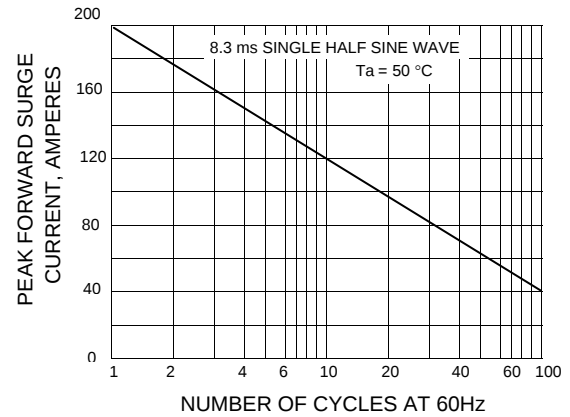


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

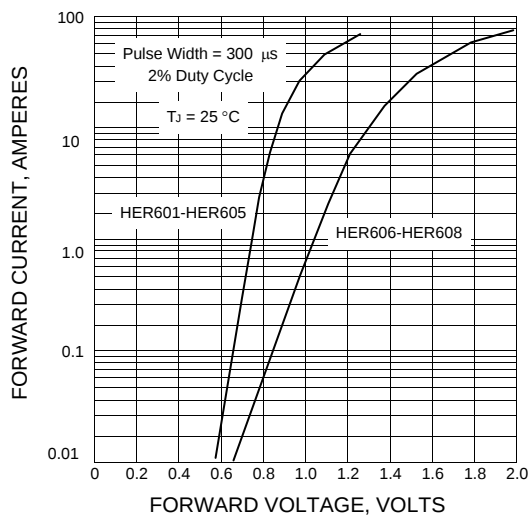


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

