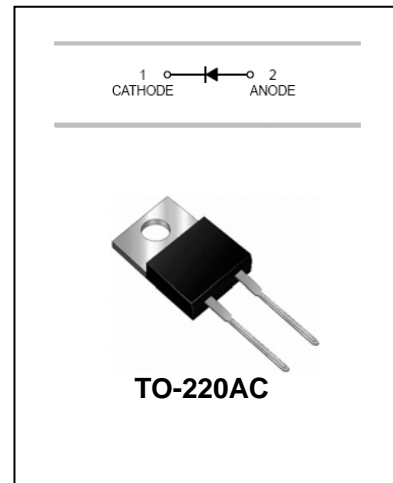


High Efficiency Rectifier

HER801--- HER804

FEATURES

- Low switching noise
- Low forward voltage drop
- Low thermal resistance
- High current capability
- High fast switching capability
- High surge capability



MAXIMUM RATING operating temperature range applies unless otherwise specified

Symbol	Parameter	HER 801	HER 802	HER 803	HER 804	HER 805	Unit
V_{RRM}	Maximum Repetitive Peak Reverse Voltage	50	100	200	300	400	V
V_{RMS}	Maximum RMS Voltage	35	70	140	210	280	V
V_{DC}	Maximum DC Blocking Voltage	50	100	200	300	400	V
I_O	Maximum Average Forward Rectified Current @ $T_C=75^{\circ}C$	8.0					A
I_{FSM}	Peak Forward Surge Current 8.3ms Single Half-sine-wave superimposed on Rsted Load (JEDEC method)	200					A
$R_{\theta JC}$	Typical Thermal Resistance	2.5					$^{\circ}C/W$
C_J	Typical Junction Capacitance (Note 2)	40					pF
$T_j T_{stg}$	Operating and storage Temperature Range	-65 to +150					$^{\circ}C$



High Efficiency Rectifier

HER801--- HER804

ELECTRICAL CHARACTERISTICS @ $T_a=25^\circ\text{C}$ unless otherwise specified

CHARACTERISTICS	SYMBOL	HER	HER	HER	HER	HER	UNITS
		801	802	803	804	805	
Maximum Instantaneous Forward Voltage at 8.0A DC	V_F	1.0			1.3		V
Maximum DC Reverse Current at Rated DC Blocking Voltage	@TC = 25°C	10					uA
	@TC = 100°C	150					
Maximum Reverse Recovery Time (Note 1)	t_{rr}	50					nS

NOTES : 1. Test Conditions: $I_F = 0.5\text{A}$, $I_R = -1.0\text{A}$, $I_{RR} = -0.25\text{A}$

2. Measured at 1 MHz and applied reverse voltage of 4.0 volts.

3. Suffix "R" for Reverse Polarity



High Efficiency Rectifier

HER801--- HER804

TYPICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

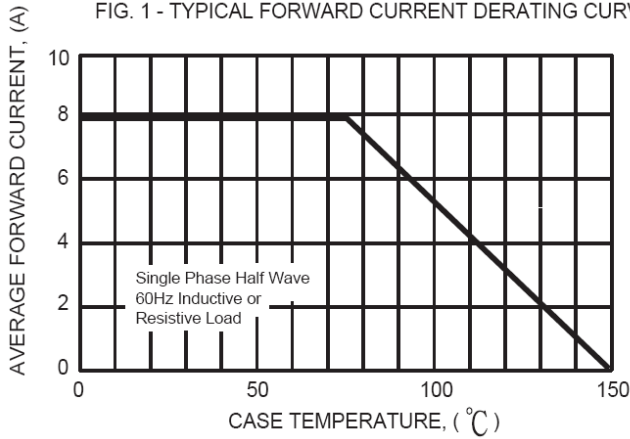


FIG. 2 - TYPICAL REVERSE CHARACTERISTICS

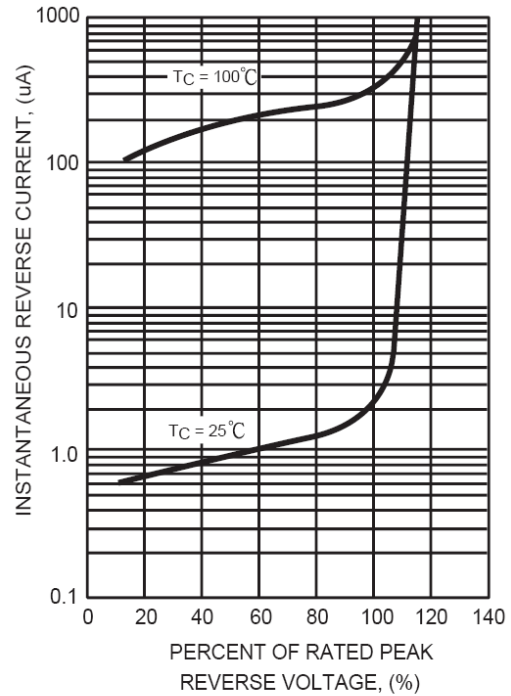


FIG. 3 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

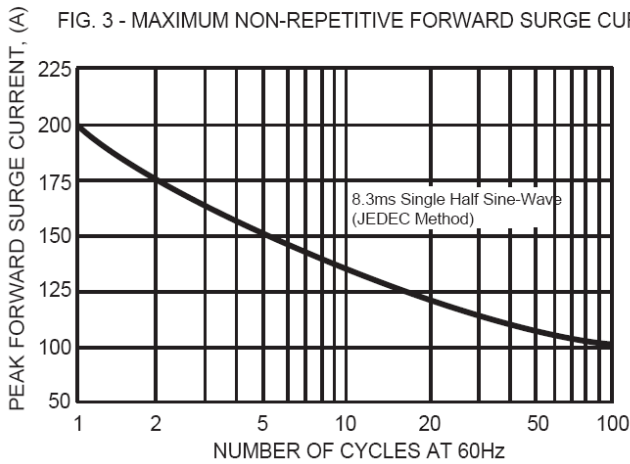


FIG. 4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

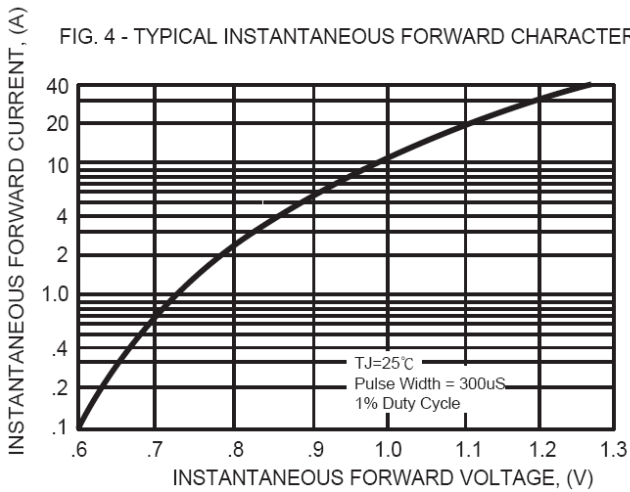
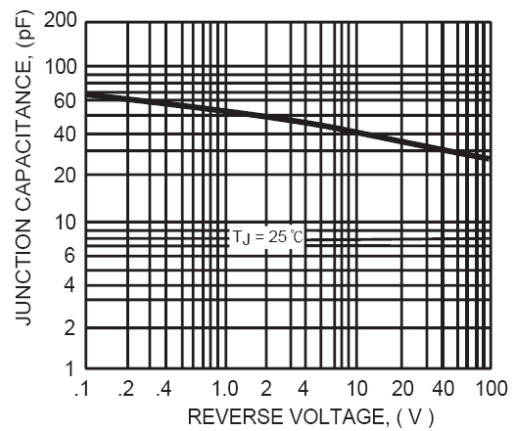


FIG. 5 - TYPICAL JUNCTION CAPACITANCE





High Efficiency Rectifier

HER801--- HER804

PACKAGE OUTLINE

Plastic surface mounted package

TO-220AC

