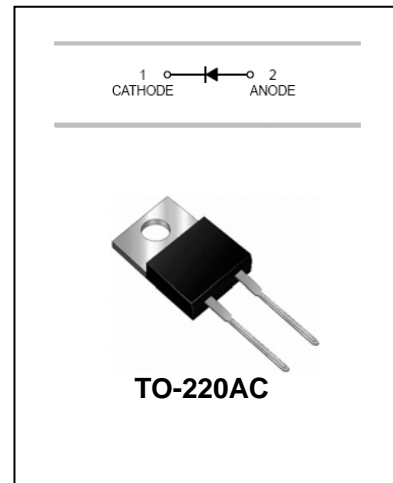


## High Efficiency Rectifier

## 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					$^{\circ}C$



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## High Efficiency Rectifier

## HER801--- HER804

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

CHARACTERISTICS	SYMBOL	HER 801	HER 802	HER 803	HER 804	HER 805	UNITS
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 = $25^\circ\text{C}$	10					uA
	@TC = $100^\circ\text{C}$	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

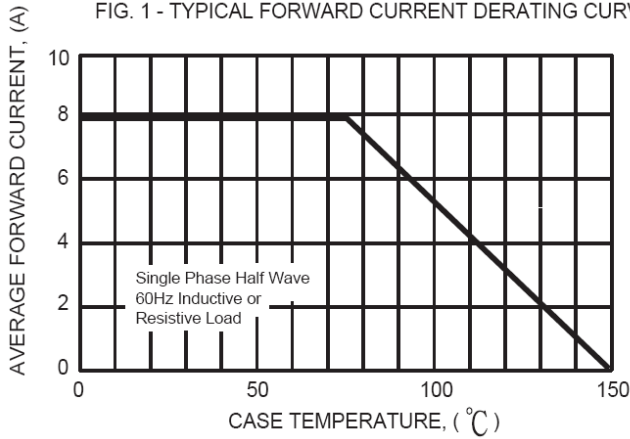


FIG. 2 - TYPICAL REVERSE CHARACTERISTICS

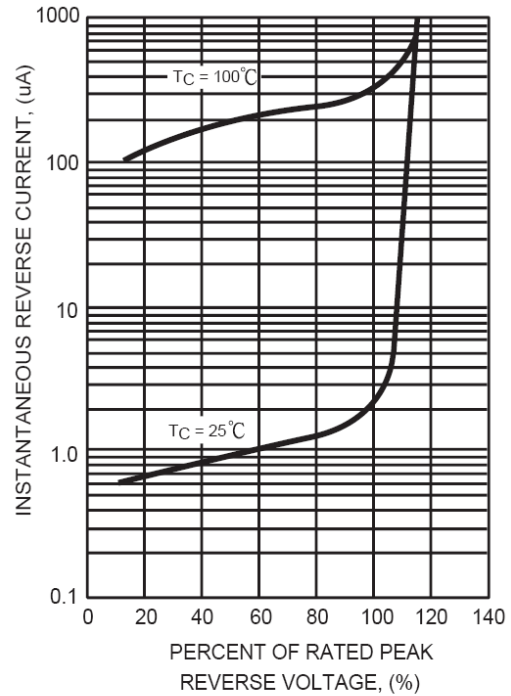


FIG. 3 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

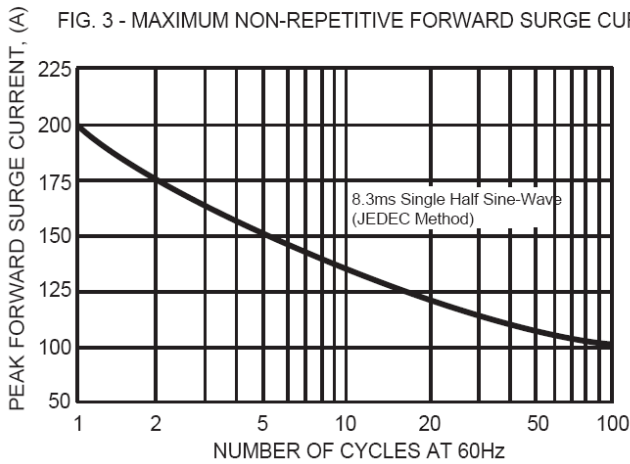


FIG. 4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

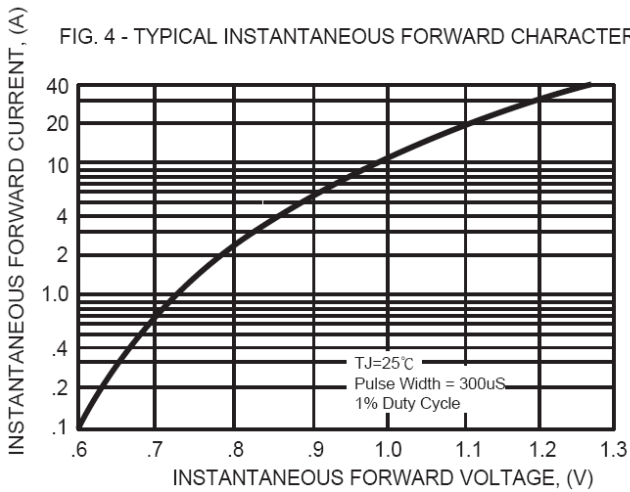
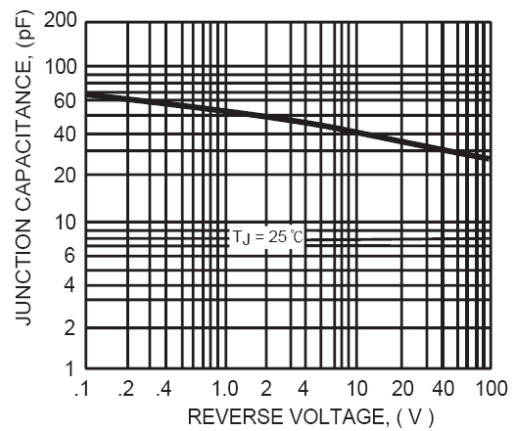


FIG. 5 - TYPICAL JUNCTION CAPACITANCE





**High Efficiency Rectifier**

**HER801--- HER804**

**PACKAGE OUTLINE**

Plastic surface mounted package

TO-220AC

