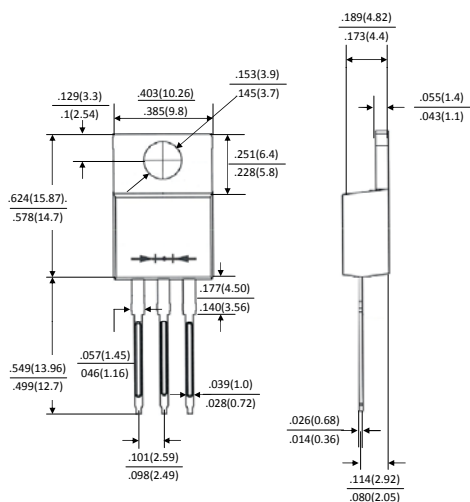




HER1001C thru HER1007C



High Efficiency Rectifiers Glass Passivation Junction



TO-220AB

Dimensions in inches and (millimeters)

Ordering Information	
Part Number	Remark
HER100xC	General
HER100xC-H	Halogen Free
HER100xC-Q	Automotive

PRIMARY CHARACTERISTICS	
I_F	10A
V_{RRM}	50~1000V
I_{FSM}	100A
V_F	1.0V, 1.35V, 1.75V
$T_J \text{ max}$	150°C

Features

- Low forward voltage drop
- High current capability
- High reliability
- High surge current capability
- High speed switching
- AEC-Q101 qualified

Mechanical Data

- Case: TO-220AB
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0
- Terminals: Lead Free Plating (Tin Finish). Solderable per MIL-STD-202, Method 208
- Weight: 1.95 grams (approximate)

MAXIMUM RATINGS (TA=25°C unless otherwise noted)

PARAMETER	SYMBOL	HER10 01C	HER10 02C	HER10 03C	HER10 04C	HER10 05C	HER10 06C	HER10 07C	UNIT
Maximum repetitive peak reverse voltage	V _{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V _{RMS}	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	V _{DC}	50	100	200	400	600	800	1000	V
Maximum average forward rectified current (Total) (Per Leg)	I _F	10 5							A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	I _{FSM}	100.0							A
Maximum Instantaneous Forward Voltage IF=5A @ 25°C	V _F	1.00			1.35	1.75			V
Maximum DC Reverse Current @ Tc=25°C at Rated DC Blocking Voltage @ Tc=100°C	I _R	5 20							uA mA
Typical Junction Capacitance(NOTE1)	C _j	75							pF
Maximum Reverse Recovery Time(NOTE2)	T _{rr}	50				75			ns
Typical Thermal Resistance	R _{θJC}	3							°C/W
Operating Temperature Range	T _J	-55 to +150							°C
Storage Temperature Range	T _{STG}	-55 to +150							°C

NOTES:1.Measured at 1.0MHZ and applied reverse voltage of 4.0V DC

2.Measured with IF=0.5A, IR=1A, IRR=0.25A



High Efficiency Rectifiers Glass Passivation Junction

FIG. 1-TYPICAL FORWARD CURRENT DERATING CURVE

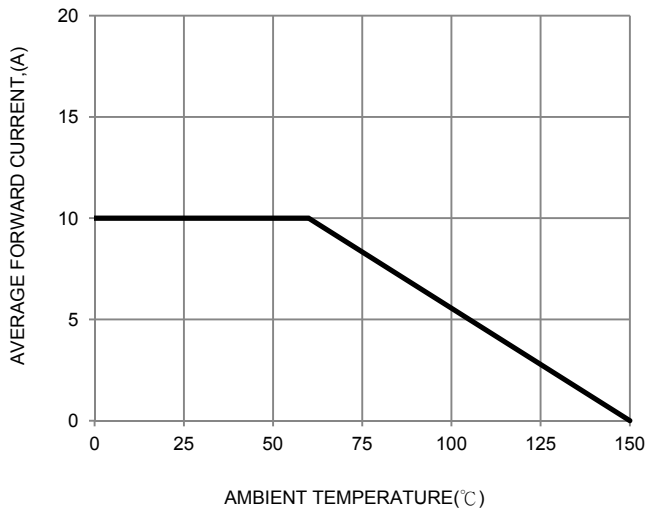


FIG. 2-TYPICAL FORWARD CHARACTERISTICS

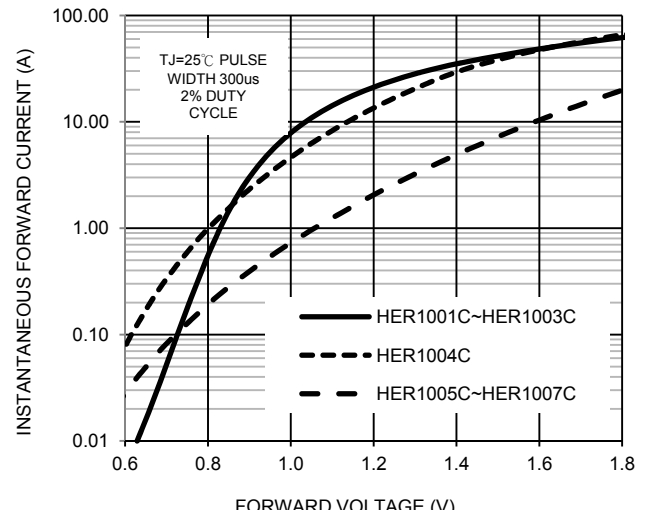


FIG. 3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

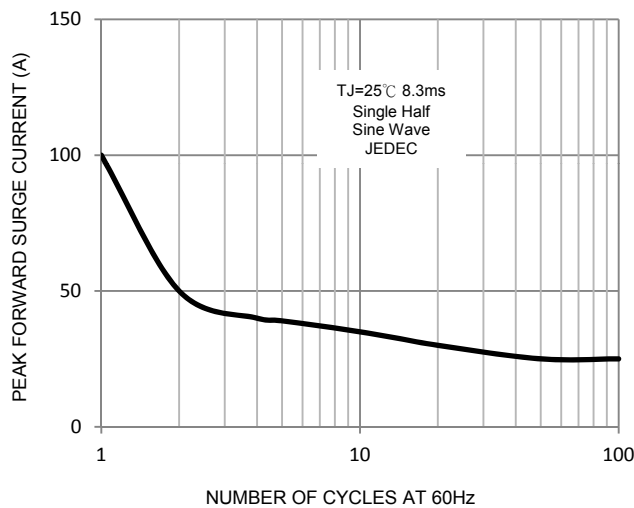


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

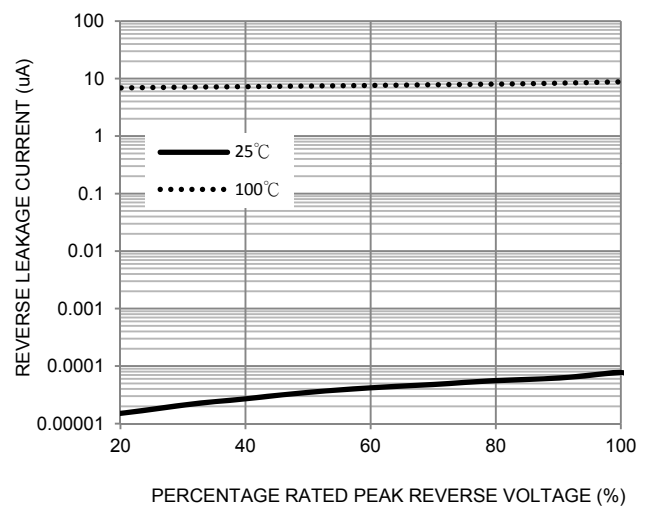


FIG. 5-TYPICAL JUNCTION CAPACITANCE

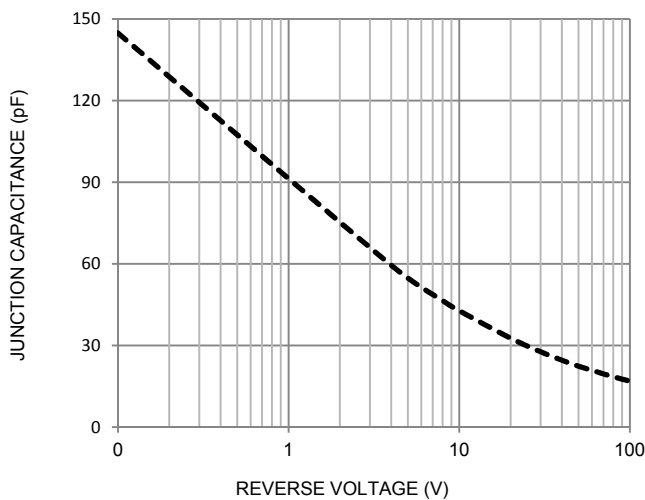


FIG. 6-Reverse Recovery Time Characteristic and Test Circuit

