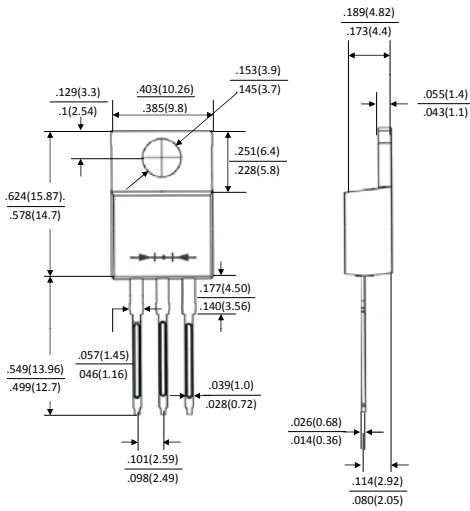




# HER1601C thru HER1607C



## High Efficiency Rectifiers Glass Passivation Junction



### TO-220AB

Dimensions in inches and (millimeters)



Ordering Information	
Part Number	Remark
HER160xC	General
HER160xC-H	Halogen Free
HER160xC-Q	Automotive

PRIMARY CHARACTERISTICS	
$I_F$	16A
$V_{RRM}$	50~1000V
$I_{FSM}$	125A
$V_F$	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: 1.948 grams (approximate)

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

PARAMETER	SYMBOL	HER16 01C	HER16 02C	HER16 03C	HER16 04C	HER16 05C	HER16 06C	HER16 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)	$I_F$	16 8							A	
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	$I_{FSM}$	125.0							A	
Maximum Instantaneous Forward Voltage IF=8A @ 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	$I_R$	5 100							uA	
Typical Junction Capacitance(NOTE1)	$C_j$	75							pF	
Maximum Reverse Recovery Time(NOTE2)	$T_{rr}$	50				75				ns
Typical Thermal Resistance	$R_{\theta JC}$	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



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FIG. 1-TYPICAL FORWARD CURRENT DERATING CURVE

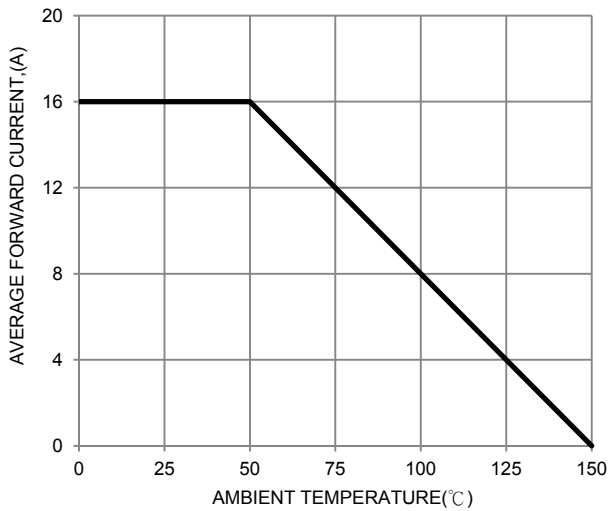


FIG. 2-TYPICAL FORWARD CHARACTERISTICS

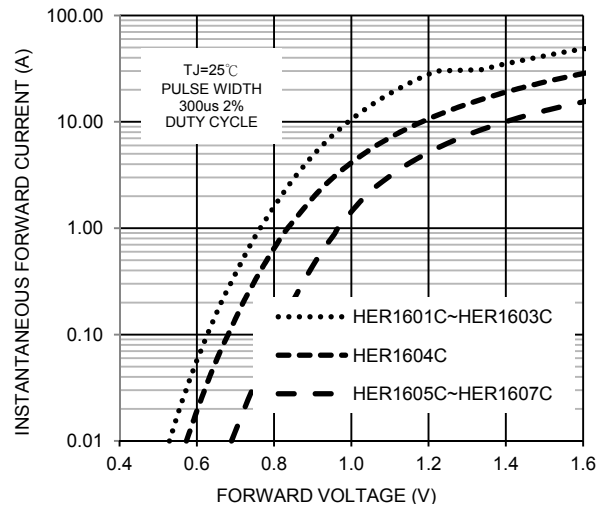


FIG. 3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

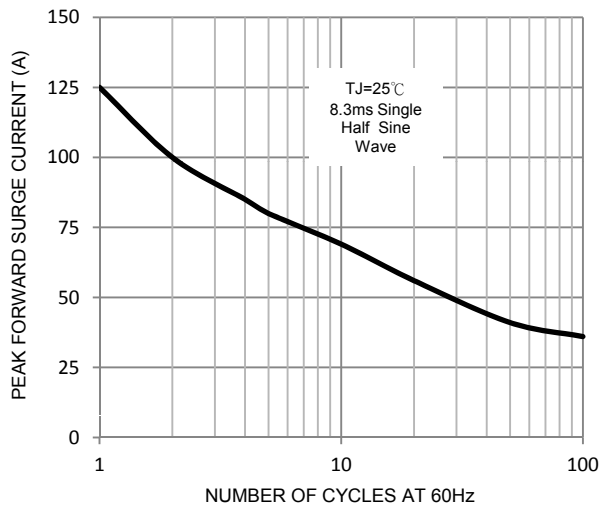


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

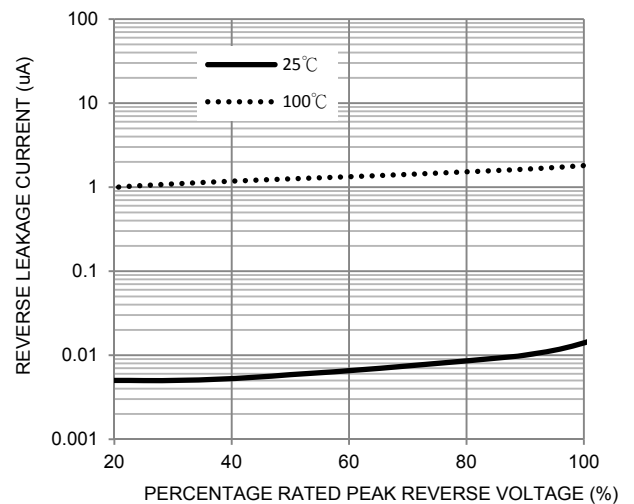


FIG. 5-TYPICAL JUNCTION CAPACITANCE

