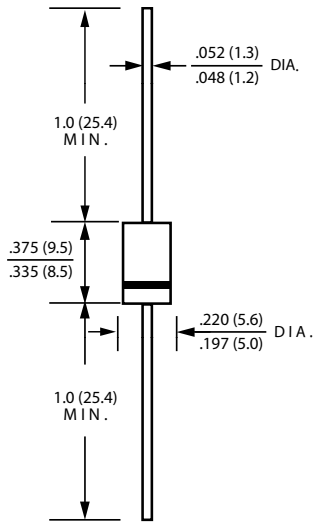




HER301 thru HER307



High Efficiency Rectifiers Plastic Passivation Junction



DO-201AD

Dimensions in inches and (millimeters)

Ordering Information	
Part Number	Remark
HER30x	General
HER30x-H	Halogen Free
HER30x-Q	Automotive

PRIMARY CHARACTERISTICS	
I_F	3A
V_{RRM}	50~1000V
I_{FSM}	80A
V_F	1.0V, 1.3V, 1.7V
$T_J \text{ max}$	125°C

Features

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

Mechanical Data

- Case:DO-201AD
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0
- Terminals: Lead Free Plating (Tin Finish). Solderable per MIL-STD-202, Method 208
- Weight: 1.071 grams (approximate)

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

PARAMETER	SYMBOL	HER 301	HER 302	HER 303	HER 304	HER 305	HER 306	HER 307	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	I_F	3.0							A	
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	80.0							A	
Maximum Instantaneous Forward Voltage $I_F=3A @ 25^\circ C$	V_F	1.00		1.30		1.70			V	
Maximum DC Reverse Current @ $T_c=25^\circ C$ at Rated DC Blocking Voltage @ $T_c=100^\circ C$	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	$R_{\theta Ja}$ $R_{\theta Jc}$	70 50							°C/W	
Operating Temperature Range	T_J	-55 to +125							°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 $I_F=0.5A$, $I_R=1A$, $IRR=0.25A$



High Efficiency Rectifiers Plastic Passivation Junction

FIG. 1-TYPICAL FORWARD CURRENT DERATING CURVE

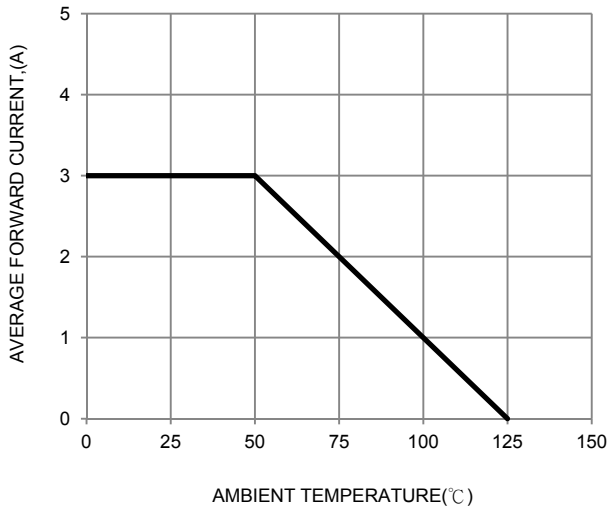


FIG. 2-TYPICAL FORWARD CHARACTERISTICS

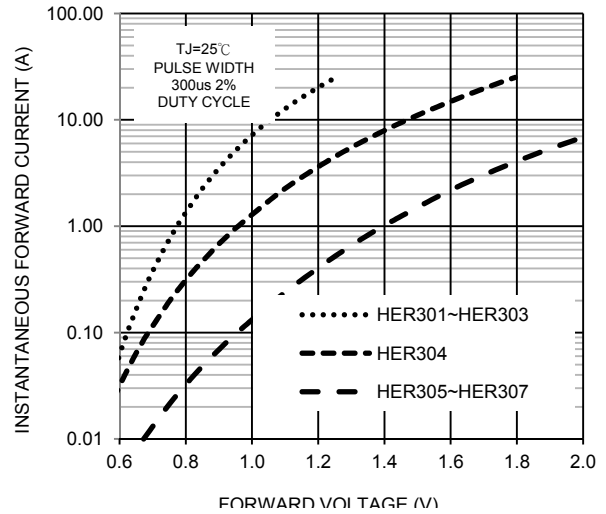


FIG. 3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

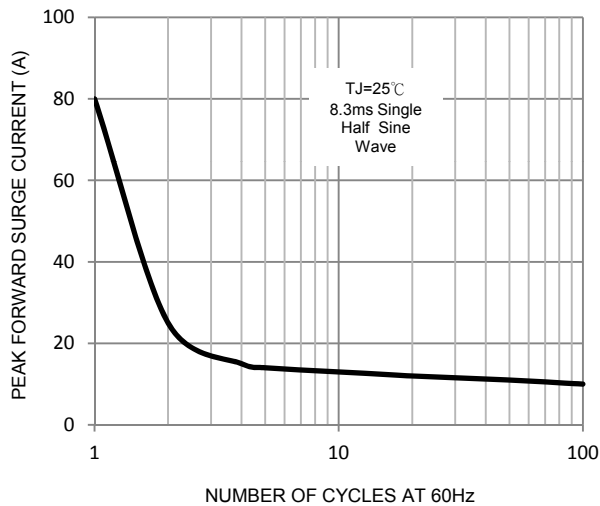


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

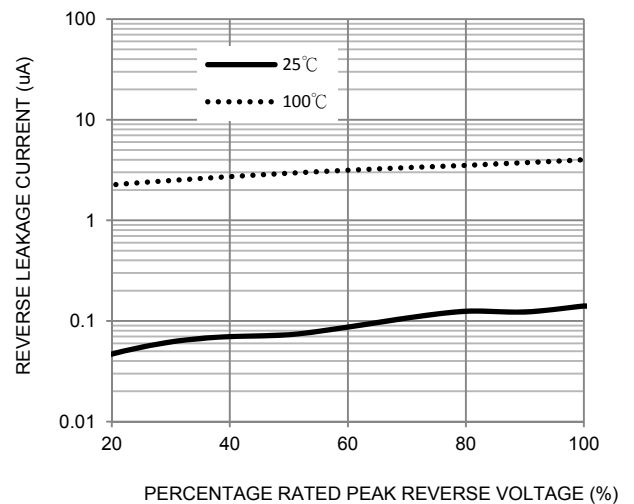


FIG. 5-TYPICAL JUNCTION CAPACITANCE

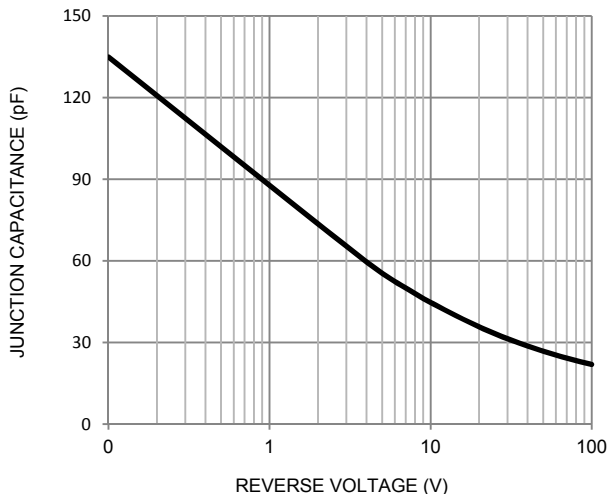


FIG. 6-Reverse Recovery Time Characteristic and Test Circuit

