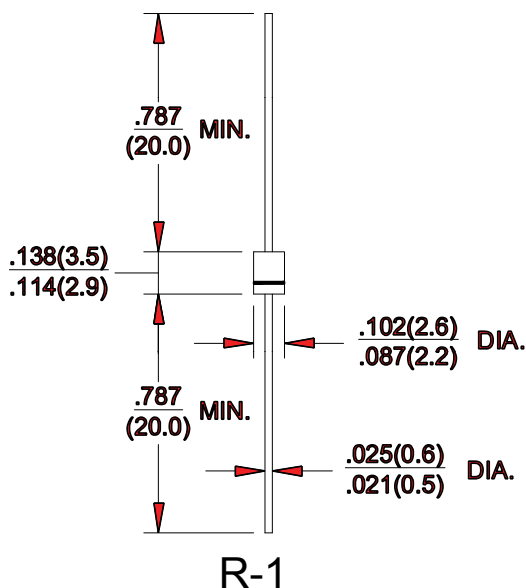




1H1 thru 1H7



High Efficiency Rectifiers Plastic Passivation Junction



Dimensions in inches and (millimeters)

Ordering Information	
Part Number	Remark
1Hx	General
1Hx-H	Halogen Free
1Hx-Q	Automotive

PRIMARY CHARACTERISTICS	
I_F	1A
V_{RRM}	50~1000V
I_{FSM}	25A
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: R-1
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0
- Terminals: Lead Free Plating (Tin Finish). Solderable per MIL-STD-202, Method 208
- Weight: 0.201 grams (approximate)

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

PARAMETER	SYMBOL	1H1	1H2	1H3	1H4	1H5	1H6	1H7	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	1.0							A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	I _{FSM}	25.0							A
Maximum Instantaneous Forward Voltage IF=1A @ 25°C	V _F	1.00			1.30	1.70			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 _{θJa} R _{θJC}	100 70							°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

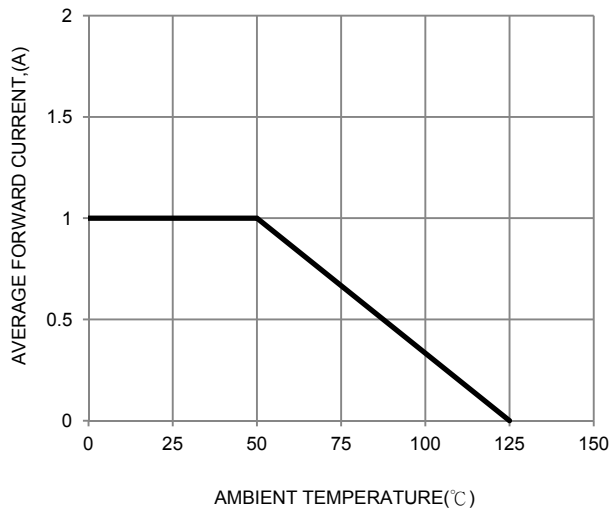


FIG. 2-TYPICAL FORWARD CHARACTERISTICS

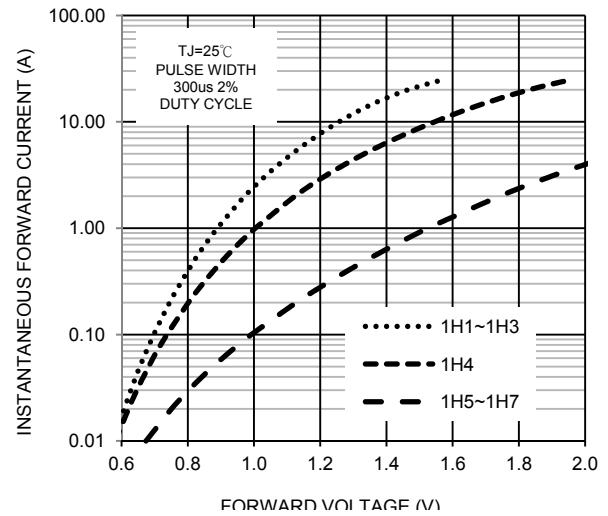


FIG. 3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

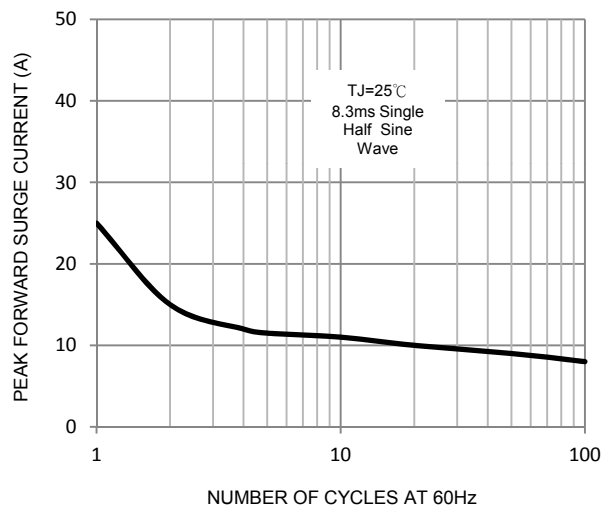


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

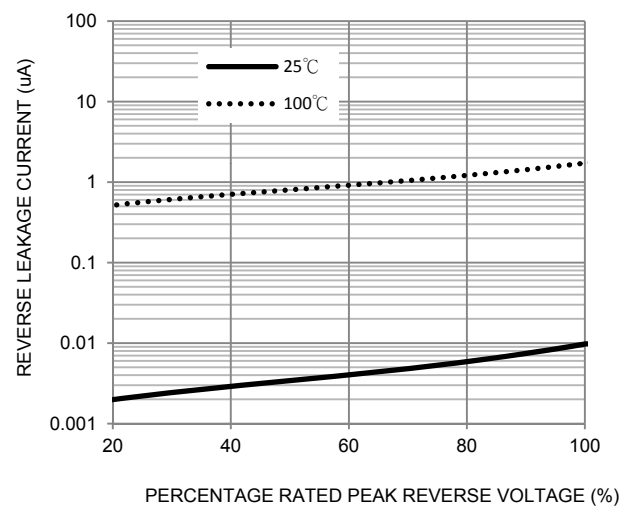


FIG. 5-TYPICAL JUNCTION CAPACITANCE

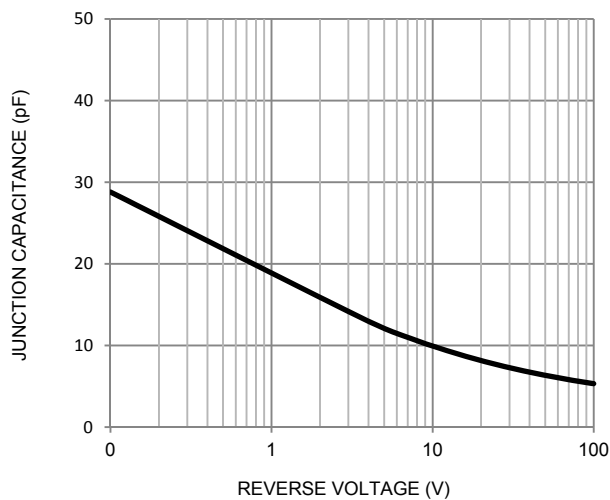


FIG. 6-Reverse Recovery Time Characteristic and Test Circuit

