HL101W THRU HL107W

SURFACE MOUNT SILICON RECTIFIER

VOLTAGE RANGE 50 to 1000 Volts CURRENT 1.0 Ampere

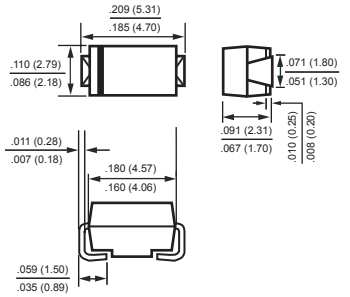
FEATURES

* Ideal for surface mounted applications
* Low leakage current
* Metallurgically bonded construction
* Mounting position: Any
* Weight: 0.078 gram

MECHANICAL DATA

* Epoxy : Device has UL flammability classification 94V-0

SMX



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specfied.
Single phase, half wave, 60 Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

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

RATINGS	SYMBOL	HL101W	HL102W	HL103W	HL104W	HL105W	HL106W	HL107W	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Current at Lead Temperature	I_O	1.0							Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	35				30			Amps
Typical Thermal Resistance (Note 1)	$R_{\theta JA}$	100							°C/W
Typical Thermal Resistance (Note 1)	$R_{\theta JL}$	60							°C/W
Typical Junction Capacitance (Note 2)	C_J	15							pF
Operating Temperature Range	T_J	150							°C
Storage Temperature Range	T_{STG}	-55 to + 150							°C

ELECTRICAL CHARACTERISTICS(@TA=25 °C unless otherwise noted)

CHARACTERISTICS		SYMBOL	HL101W	HL102W	HL103W	HL104W	HL105W	HL106W	HL107W	UNITS
Maximum Instantaneous Forward Voltage at 1.0A DC		V_F	1.05							Volts
Maximum Full Load Reverse Current, Full cycle Average at T_A=75°C		I_R	30							uA
Maximum Average Reverse Current	@T_A = 25°C		500							nA
at Rated DC Blocking Voltage	@T_A = 125°C		100							uA

NOTES : 1. Thermal Resistance :Mounted on PCB.
2. Measured at 1 MHz and applied reverse voltage of 4.0 volts.
3. "Fully ROHS compliant","100% Sn plating (Pb-free)".

2008-7

RATING AND CHARACTERISTICS CURVES (HL101W THRU HL107W)

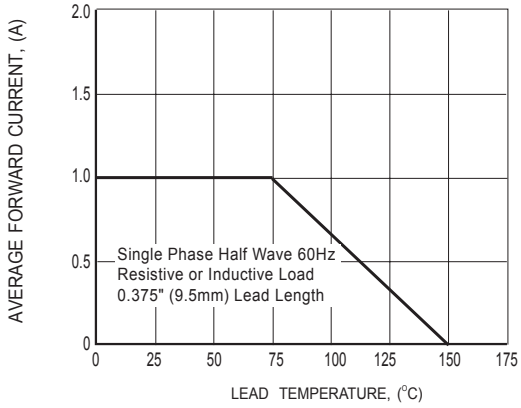


FIG.1 TYPICAL FORWARD CURRENT DERATING CURVE

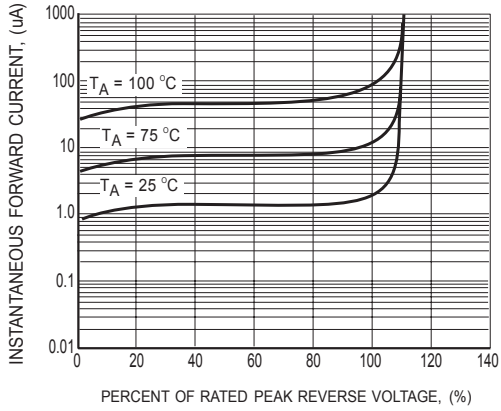


FIG.2 TYPICAL REVERSE CHARACTERISTICS

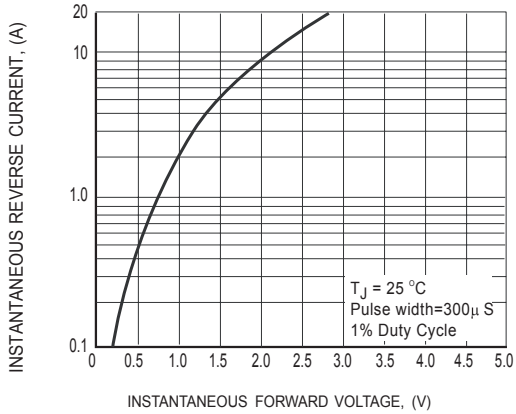


FIG.3 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

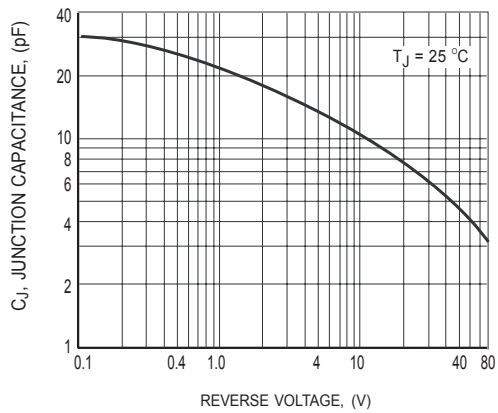


FIG.4 TYPICAL JUNCTION CAPACITANCE

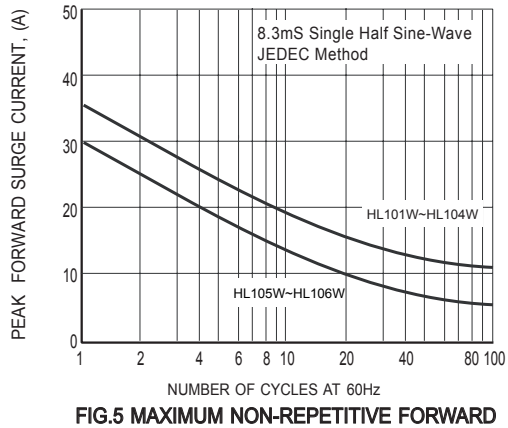


FIG.5 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT