



SURFACE MOUNT SILICON RECTIFIER S1A-H ~ S1M-H

Surface Mount Silicon Rectifier

Features

- Low Leakage current
- Ideal for surface mounted applications
- Open Junction chip
- High temperature soldering guaranteed 265°C /5 seconds
260°C/ 10 seconds
- RoHS and REACH compliance



RoHS
COMPLIANT

SMA-H

Mechanical Data

Case:	Transfer molded plastic
Epoxy:	Meets UL 94V-0 flammability rating
Terminals:	Solder plated, solderable per MIL-STD 750, Method 2026
Polarity:	Cathode indicated by color band
Mounting position:	Any
Weight:	0.078 gram

Maximum Ratings ($T_{Ambient}=25^{\circ}C$ unless noted otherwise)

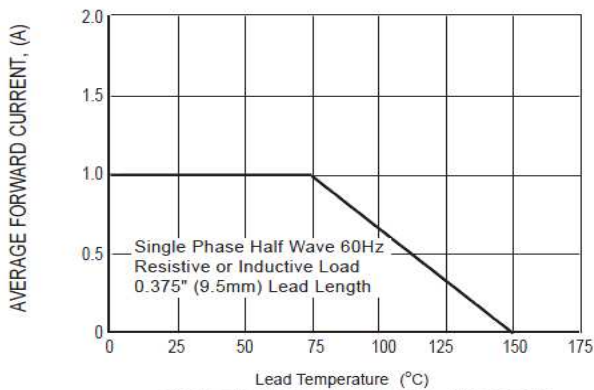
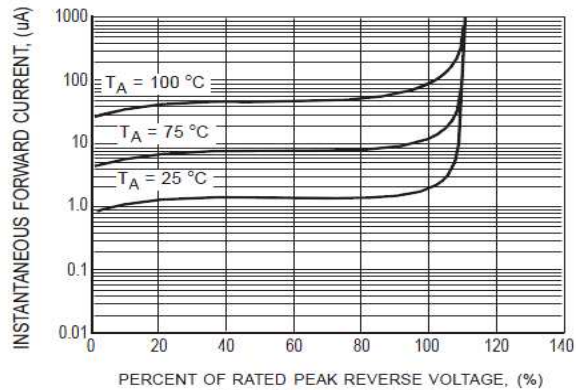
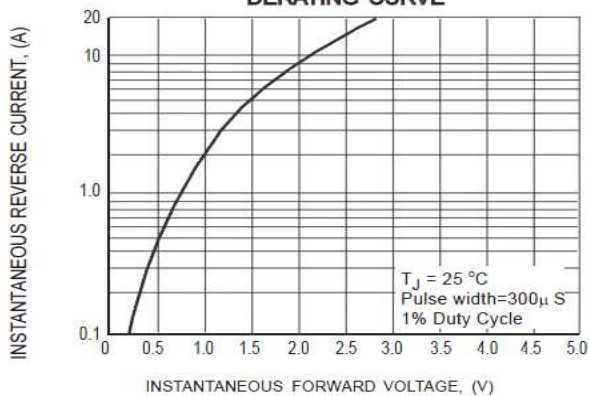
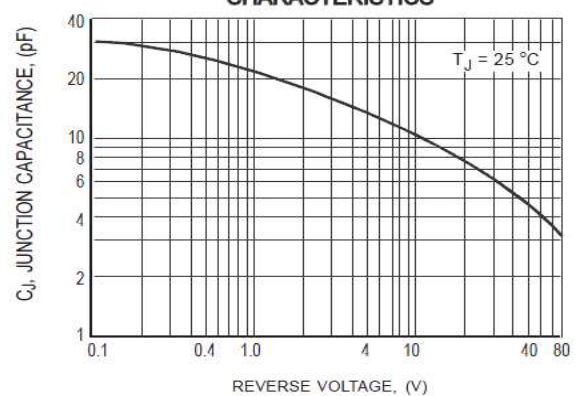
Symbol	Description	S1A-H	S1B-H	S1D-H	S1G-H	S1J-H	S1K-H	S1M-H	Unit	Conditions	
V_{RRM}	Max Recurrent Peak Reverse Voltage	50	100	200	400	600	800	1000	V		
V_{RMS}	Max RMS Voltage	35	70	140	280	420	560	700	V		
V_{DC}	Max DC Blocking Voltage	50	100	200	400	600	800	1000	V		
I_o	Max Average Forward Rectified Current at Ambient Temperature	1.0								A	
I_{FSM}	Peak Forward Surge Current	30								A	8.3ms single half sine-wave (JEDEC)
I_2T	Typical Current Square Time	3.7								μA	
T_J , T_{STG}	Operating and Storage Temperature Range	-55 to +150								$^{\circ}C$	

S1A-H ~ S1M-H
Electrical Characteristics ($T_{Ambient}=25^{\circ}C$ unless noted otherwise)

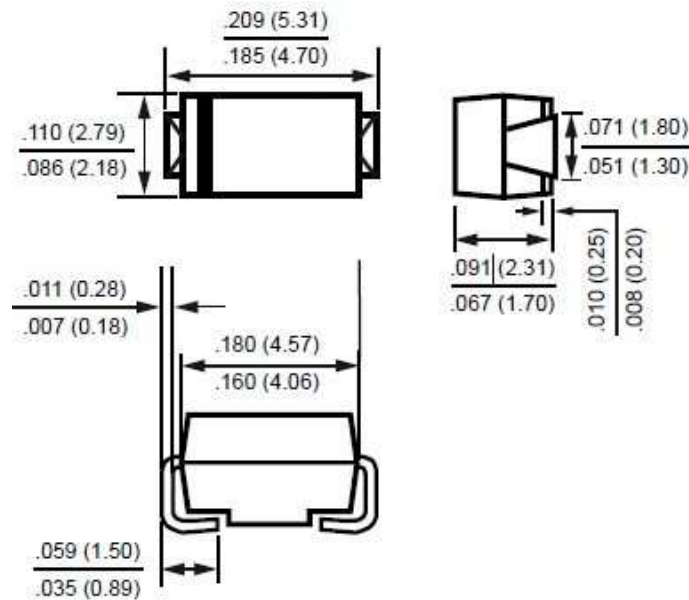
Symbol	Description	S1A-H	S1B-H	S1D-H	S1G-H	S1J-H	S1K-H	S1M-H	Unit	Conditions
V_F	Max Instantaneous Forward Voltage	1.1							v	$I_{F(AV)}=1.0A$
I_R	Max DC Reverse Current at Rated DC Blocking Voltage	30							μA	$T_A=75^{\circ}C$
		5.0								$T_A=25^{\circ}C$
		100								$T_A=125^{\circ}C$
C_J	Typical Junction Capacitance	15							pF	At 1MHz, reversed voltage of 4V
$R_{\theta-JA}$	Typical Thermal Resistance	80							$^{\circ}C/W$	Note 2
$R_{\theta-JL}$		30								

Note:

1. Single phase, half wave, 60Hz, resistive or inductive load. Derate current by 20% for capacitive load
2. Thermal Resistance, PCB mounted

Typical Characteristics Curves

FIG.1 TYPICAL FORWARD CURRENT DERATING CURVE

FIG.2 TYPICAL REVERSE CHARACTERISTICS

FIG.3 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

FIG.4 TYPICAL JUNCTION CAPACITANCE

Dimensions in inch (mm)

**SMA-H**

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