















**ESD** 

TVS

MOS

LDO

Diode

Sensor

DC-DC

# **Product Specification**

Domestic Part Number	S1A THRU S1M
<ul><li>Overseas Part Number</li></ul>	S1A THRU S1M
▶ Equivalent Part Number	S1A THRU S1M





## Surface Mount General Purpose Silicon Rectifiers Reverse Voltage - 50 to 1000 V

Forward Current - 1 A

#### **FEATURES**

- For surface mounted applications
- · Low profile package
- Glass Passivated Chip Junction
- Easy to pick and place
- Lead free in comply with EU RoHS 2011/65/EU directives

#### **MECHANICAL DATA**

• Case: SMA

• Terminals: Solderable per MIL-STD-750, Method 2026

• Approx. Weight: 0.055g / 0.002oz

#### **PINNING**

PIN	DESCRIPTION			
1	Cathode			
2	Anode			



#### **Maximum Ratings and Electrical characteristics**

Ratings at 25 °C ambient temperature unless otherwise specified.

Single phase half-wave 60 Hz, resistive or inductive load, for capacitive load current derate by 20 %.

Parameter	Symbols	S1A	S1B	S1D	S1G	S1J	S1K	S1M	Units
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	٧
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	٧
Maximum Average Forward Rectified Current	I <sub>F(AV)</sub>	1					А		
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load	I <sub>FSM</sub>	30					А		
Maximum Instantaneous Forward Voltage at 1 A	V <sub>F</sub>	1.1					V		
Maximum DC Reverse Current T <sub>a</sub> = 25 °C at Rated DC Blocking Voltage T <sub>a</sub> = 125 °C	I <sub>R</sub>				5 50				μA
Typical Junction Capacitance (1)	C <sub>j</sub>				15				pF
Typical Thermal Resistance (2)	R <sub>θJA</sub>				75				°C/W
Operating and Storage Temperature Range	$T_{j},T_{stg}$			-	55 ~ +15	0			°C

<sup>( 1 )</sup> Measured at 1 MHz and applied reverse voltage of 4 V D.C

<sup>( 2 )</sup> P.C.B. mounted with 2.0" X 2.0" (5 X 5 cm) copper pad areas.



Fig.1 Forward Current Derating Curve

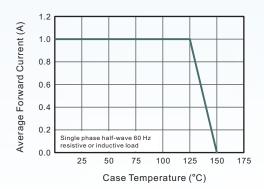


Fig.2 Typical Reverse Characteristics

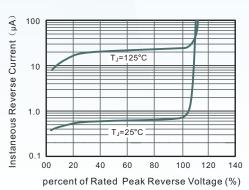


Fig.3 Typical Forward Characteristic

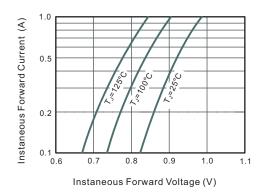


Fig.4 Typical Junction Capacitance

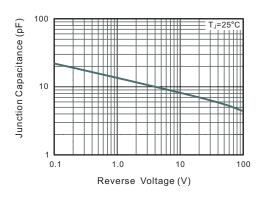
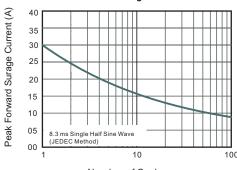


Fig.5 Maximum Non-Repetitive Peak Forward Surage Current

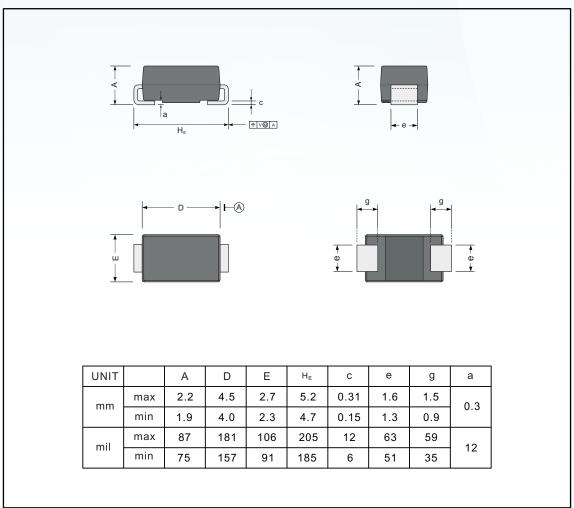




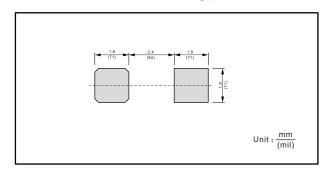
### PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

**SMA** 



#### The recommended mounting pad size



#### Marking

Type number	Marking code
S1A	S1A
S1B	S1B
S1D	S1D
S1G	S1G
S1J	S1J
S1K	S1K
S1M	S1M



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