

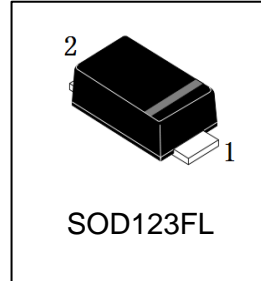
# S-P4SODJ\*\*A-SH

## SURFACE MOUNT TRANSIENT VOLTAGE SUPPRESSOR

400 Watt Peak Pulse Power

### Features

- \* 400 W peak pulse power capability with a 10/1000  $\mu$ s waveform
- \* Low profile package
- \* Built-in strain relief
- \* Glass passivated junction
- \* Low inductance
- \* Excellent clamping capability
- \* Repetition Rate (duty cycle):0.01%
- \* Fast response time: typically less than 1.0ps from 0 Volts to V(BR) for unidirectional types
- \* Typical IR less than 1mA above 10V
- \* We declare that the material of product compliance with RoHS requirements and Halogen Free.
- \* S-prefix for automotive and other applications requiring unique site and control change requirements; AEC-Q101 qualified and PPAP capable.



### Mechanical data

- \* **Epoxy** : UL94-V0 rated flame retardant
- \* **Case** : Molded plastic, SOD123-FL/MINI SMA
- \* **Terminals** : Plated terminals, solderable per MIL-STD-750,Method 2026
- \* **Polarity** : Indicated by cathode band; Bidirectional without color band.
- \* **Mounting Position** : Any
- \* **Weight** :15mg

### 1.Maximum ratings and Electrical Characteristics(Ta=25°C unless otherwise noted)

PARAMETER	SYMBOL	VALUE	UNITS
Peak Power Dissipation at $T_A=25^\circ\text{C}$ , $T_P=10/1000 \mu\text{s}$	$P_{PPM}$	400	Watts
Thermal resistance(Note 1)	$R_{\theta JL}$	20	$^\circ\text{C/W}$
Peak Forward Surge Current, 8.3ms Single Half Sine-Wave Superimposed on Rated Load(JECED Method)	$I_{FSM}$	40	Amps
Operating Temperature Range	$T_J$	-55 to +150	$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	-55 to +150	$^\circ\text{C}$

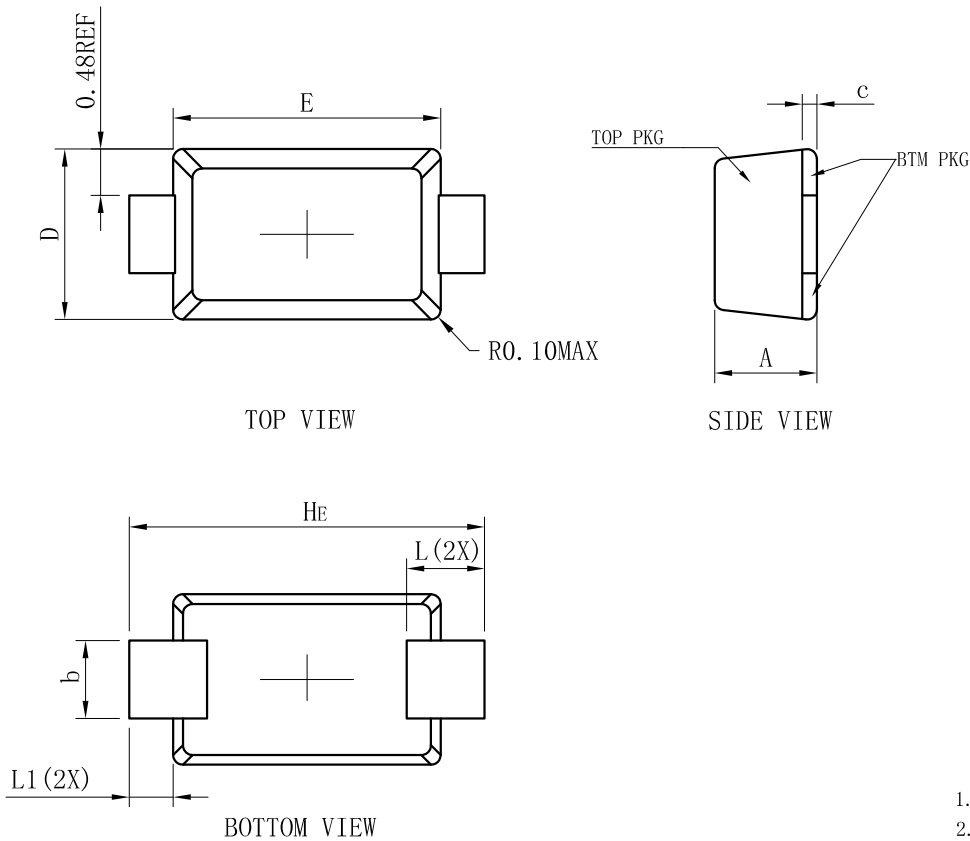
#### NOTES:

1. Mounted on infinite heat sink;

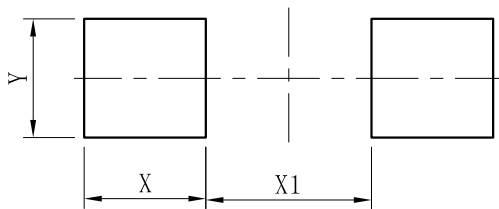
## S-P4SODJ\*\*A-SH

Uni-Directional Part Number	Device marking	Reverse Stand-off Voltage VRWM (V)	Breakdown Voltage VBR (V) Min. @IT	Breakdown Voltage VBR (V) Max. @IT	Test Current IT (mA)	Maximum Clamping Voltage @IPP VC (V)	Peak Pulse Current Ipp (A)	Reverse Leakage @VRWM IR (uA)
S-P4SODJ5.0A-SH	P5	5.00	6.40	7.00	10.00	9.20	43.5	800
S-P4SODJ6.0A-SH	P6A	6.00	6.67	7.37	10.00	10.30	38.8	800
S-P4SODJ6.5A-SH	P6	6.50	7.22	7.98	10.00	11.20	35.7	500
S-P4SODJ7.0A-SH	P7A	7.00	7.78	8.60	10.00	12.00	33.3	200
S-P4SODJ7.5A-SH	P7	7.50	8.33	9.21	1.00	12.90	31.0	100
S-P4SODJ8.0A-SH	P8A	8.00	8.89	9.83	1.00	13.60	29.4	50
S-P4SODJ8.5A-SH	P8	8.50	9.44	10.40	1.00	14.40	27.8	20
S-P4SODJ9.0A-SH	P9	9.00	10.00	11.10	1.00	15.40	26.0	10
S-P4SODJ10A-SH	P10	10.00	11.10	12.30	1.00	17.00	23.5	1
S-P4SODJ11A-SH	P11	11.00	12.20	13.50	1.00	18.20	22.0	1
S-P4SODJ12A-SH	P12	12.00	13.30	14.70	1.00	19.90	20.1	1
S-P4SODJ13A-SH	P13	13.00	14.40	15.90	1.00	21.50	18.6	1
S-P4SODJ14A-SH	P14	14.00	15.60	17.20	1.00	23.20	17.2	1
S-P4SODJ15A-SH	P15	15.00	16.70	18.50	1.00	24.40	16.4	1
S-P4SODJ16A-SH	P16	16.00	17.80	19.70	1.00	26.00	15.4	1
S-P4SODJ17A-SH	P17	17.00	18.90	20.90	1.00	27.60	14.5	1
S-P4SODJ18A-SH	P18	18.00	20.00	22.10	1.00	29.20	13.7	1
S-P4SODJ20A-SH	P20	20.00	22.20	24.50	1.00	32.40	12.3	1
S-P4SODJ22A-SH	P22	22.00	24.40	26.90	1.00	35.50	11.3	1
S-P4SODJ24A-SH	P24	24.00	26.70	29.50	1.00	38.90	10.3	1
S-P4SODJ26A-SH	P26	26.00	28.90	31.90	1.00	42.10	9.5	1
S-P4SODJ28A-SH	P28	28.00	31.10	34.40	1.00	45.40	8.8	1
S-P4SODJ30A-SH	P30	30.00	33.30	36.80	1.00	48.40	8.3	1
S-P4SODJ33A-SH	P33	33.00	36.70	40.60	1.00	53.30	7.5	1
S-P4SODJ36A-SH	P36	36.00	40.00	44.20	1.00	58.10	6.9	1
S-P4SODJ40A-SH	P40	40.00	44.40	49.10	1.00	64.50	6.2	1
S-P4SODJ43A-SH	P43	43.00	47.80	52.80	1.00	69.40	5.8	1
S-P4SODJ45A-SH	P45	45.00	50.00	55.30	1.00	72.70	5.5	1
S-P4SODJ48A-SH	P48	48.00	53.30	58.90	1.00	77.40	5.2	1
S-P4SODJ51A-SH	P51	51.00	56.70	62.70	1.00	82.40	4.9	1
S-P4SODJ54A-SH	P54	54.00	60.00	66.30	1.00	87.10	4.6	1
S-P4SODJ58A-SH	P58	58.00	64.40	71.20	1.00	93.60	4.3	1
S-P4SODJ60A-SH	P60	60.00	66.70	73.70	1.00	96.80	4.1	1
S-P4SODJ64A-SH	P64	64.00	71.10	78.60	1.00	103.00	3.9	1
S-P4SODJ70A-SH	P70	70.00	77.80	86.00	1.00	113.00	3.5	1
S-P4SODJ75A-SH	P75	75.00	83.30	92.10	1.00	121.00	3.3	1
S-P4SODJ78A-SH	P78	78.00	86.70	95.80	1.00	126.00	3.2	1
S-P4SODJ85A-SH	P85	85.00	94.40	104.00	1.00	137.00	2.9	1
S-P4SODJ90A-SH	P90	90.00	100.00	111.00	1.00	146.00	2.7	1
S-P4SODJ100A-SH	P100	100.00	111.00	123.00	1.00	162.00	2.5	1

### 3. dimension:



#### Suggested solder pad layout



DIM	(mm)
X	1.20
Y	1.10
X1	2.00