



# Silicon Avalanche Diodes

## 500 Watt Axial Leaded Transient Voltage Suppressors

### RoHS SA Series



#### ELECTRICAL SPECIFICATION @ Tamb 25°C

Part Numbers		Reverse Stand off Voltage V <sub>R</sub> (Volts)	Breakdown Voltage V <sub>BR</sub> (Volts) @ I <sub>T</sub>		Test Current I <sub>T</sub> (mA)	Maximum Clamping Voltage V <sub>C</sub> @ I <sub>PP</sub> (Volts)	Maximum Peak Pulse Current I <sub>PP</sub> (A)	Maximum Reverse Leakage I <sub>R</sub> @ V <sub>R</sub> (µA)
Uni-Polar	Bi-Polar		MIN	MAX				
SA5.0A	SA5.0CA	5.0	6.40	7.00	10	9.2	55.4	600
SA6.0A	SA6.0CA	6.0	6.67	7.37	10	10.3	49.5	600
SA6.5A	SA6.5CA	6.5	7.22	7.98	10	11.2	45.5	400
SA7.0A	SA7.0CA	7.0	7.78	8.60	10	12.0	42.5	150
SA7.5A	SA7.5CA	7.5	8.33	9.21	1	12.9	39.5	50
SA8.0A	SA8.0CA	8.0	8.89	9.83	1	13.6	37.5	25
SA8.5A	SA8.5CA	8.5	9.44	10.40	1	14.4	35.4	10
SA9.0A	SA9.0CA	9.0	10.00	11.10	1	15.4	33.1	5
SA10A	SA10CA	10.0	11.10	12.30	1	17.0	30.0	3
SA11A	SA11CA	11.0	12.20	13.50	1	18.2	28.0	3
SA12A	SA12CA	12.0	13.30	14.70	1	19.9	25.6	3
SA13A	SA13CA	13.0	14.40	15.90	1	21.5	23.7	3
SA14A	SA14CA	14.0	15.60	17.20	1	23.2	22.0	3
SA15A	SA15CA	15.0	16.70	18.50	1	24.4	20.9	3
SA16A	SA16CA	16.0	17.80	19.70	1	26.0	19.6	3
SA17A	SA17CA	17.0	18.90	20.90	1	27.6	18.5	3
SA18A	SA18CA	18.0	20.00	22.10	1	29.2	17.5	3
SA20A	SA20CA	20.0	22.20	24.50	1	32.4	15.7	3
SA22A	SA22CA	22.0	24.40	26.90	1	35.5	14.4	3
SA24A	SA24CA	24.0	26.70	29.50	1	38.9	13.1	3
SA26A	SA26CA	26.0	28.90	31.90	1	42.1	12.1	3
SA28A	SA28CA	28.0	31.10	34.40	1	45.4	11.2	3
SA30A	SA30CA	30.0	33.30	36.80	1	48.4	10.5	3
SA33A	SA33CA	33.0	36.70	40.60	1	53.3	9.6	3
SA36A	SA36CA	36.0	40.00	44.20	1	58.1	8.8	3
SA40A	SA40CA	40.0	44.40	49.10	1	64.5	7.9	3
SA43A	SA43CA	43.0	47.80	52.80	1	69.4	7.3	3
SA45A	SA45CA	45.0	50.00	55.30	1	72.7	7.0	3
SA48A	SA48CA	48.0	53.30	58.90	1	77.4	6.6	3
SA51A	SA51CA	51.0	56.70	62.70	1	82.4	6.2	3
SA54A	SA54CA	54.0	60.00	66.30	1	87.1	5.9	3
SA58A	SA58CA	58.0	64.40	71.20	1	93.6	5.4	3
SA60A	SA60CA	60.0	66.70	73.70	1	96.8	5.3	3
SA64A	SA64CA	64.0	71.10	78.60	1	103.0	5.0	3
SA70A	SA70CA	70.0	77.80	86.00	1	113.0	4.5	3
SA75A	SA75CA	75.0	83.30	92.10	1	121.0	4.2	3
SA78A	SA78CA	78.0	86.70	95.80	1	126.0	4.0	3
SA85A	SA85CA	85.0	94.40	104.00	1	137.0	3.7	3
SA90A	SA90CA	90.0	100.00	111.00	1	146.0	3.5	3
SA100A	SA100CA	100.0	111.00	123.00	1	162.0	3.1	3
SA110A	SA110CA	110.0	122.00	135.00	1	177.0	2.9	3
SA120A	SA120CA	120.0	133.00	147.00	1	193.0	2.6	3
SA130A	SA130CA	130.0	144.00	159.00	1	209.0	2.4	3
SA150A	SA150CA	150.0	167.00	185.00	1	243.0	2.1	3
SA160A	SA160CA	160.0	178.00	197.00	1	259.0	2.0	3
SA170A	SA170CA	170.0	189.00	209.00	1	275.0	1.9	3
SA180A	SA180CA	180.0	200.00	233.00	1	289.0	1.7	3

For bidirectional type having V<sub>RWM</sub> of 10 volts and less, the I<sub>R</sub> limit is double.  
 For parts without A , the V<sub>BR</sub> is ± 10%

6 SILICON DIODE ARRAYS

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### RoHS SA Series

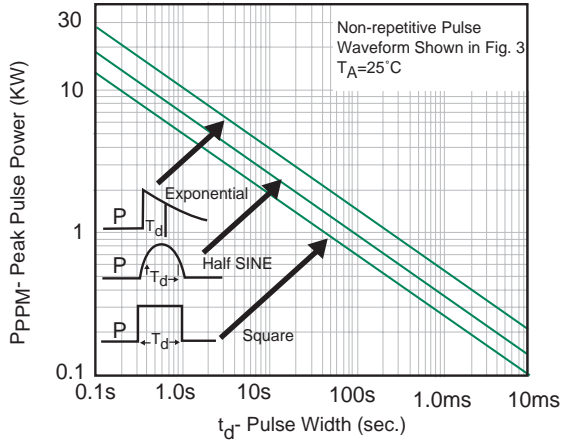


Fig. 1 Peak Pulse Power Rating Curve

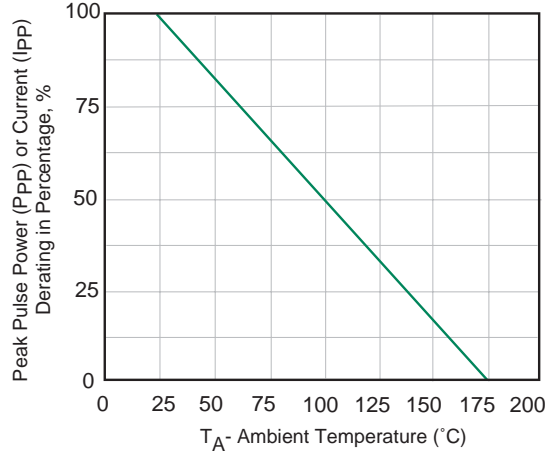


Fig. 2 Pulse Derating Curve

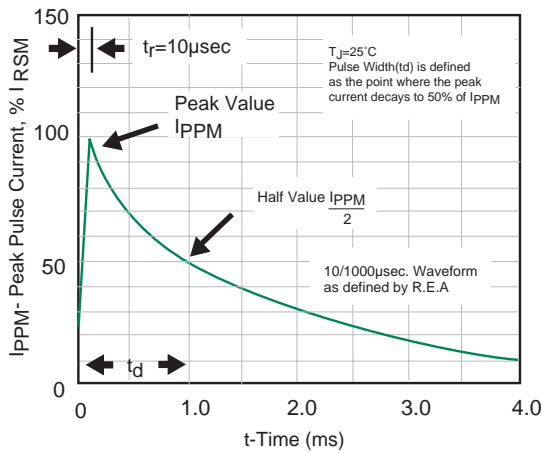


Fig. 3 Pulse Waveform

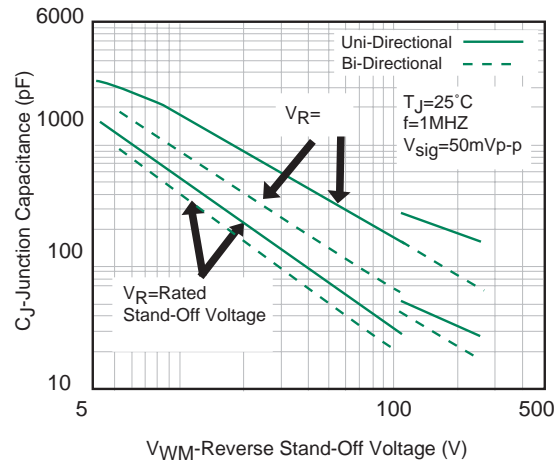


Fig. 4- Typical Junction Capacitance

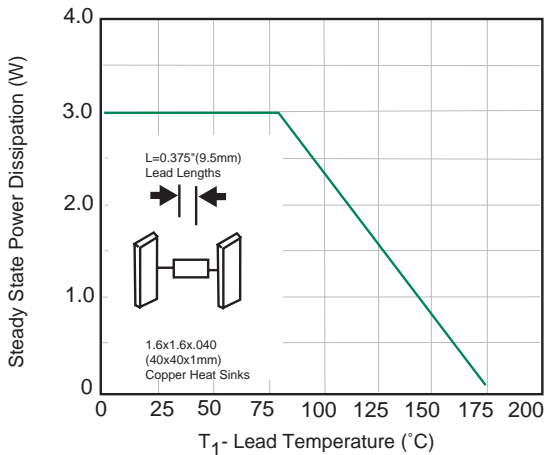


Fig. 5 Steady State Power Derating Curve

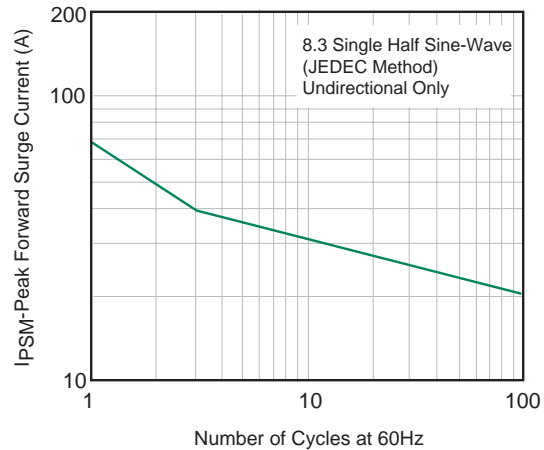


Fig. 6- Maximum Non-Repetitive Forward Surge Current Uni-Directional Only

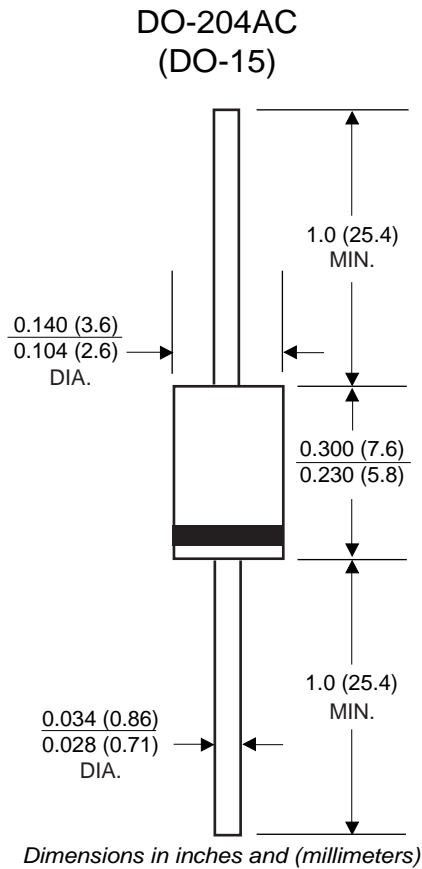
# Silicon Avalanche Diodes

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**RoHS SA Series**



### Outline Dimensions



6  
SILICON DIODE  
ARRAYS