

**SMCJ1.5KE6.8(C)AHE3
THRU
SMCJ1.5KE550(C)AHE3**

Features

- For surface mount applications in order to optimize board space
- Lead Free Finish/Rohs Compliant (Note1) ("P" Suffix designates Compliant. See ordering information)
- Low profile package
- Fast response time: typical less than 1.0ps from 0 volts to V_{BR} minimum
- Halogen free
- Low inductance
- Excellent clamping capability
- UL Recognized File # E331408
- Meet AEC-Q101 Requirement

Mechanical Data

- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Terminals: solderable per MIL-STD-750, Method 2026
- Maximum soldering temperature: 260°C for 10 seconds
- Polarity: Color band denotes positive end (cathode)
Except Bidirectional
- Manufacturing code added for better tracking

Maximum Ratings @ 25°C Unless Otherwise Specified

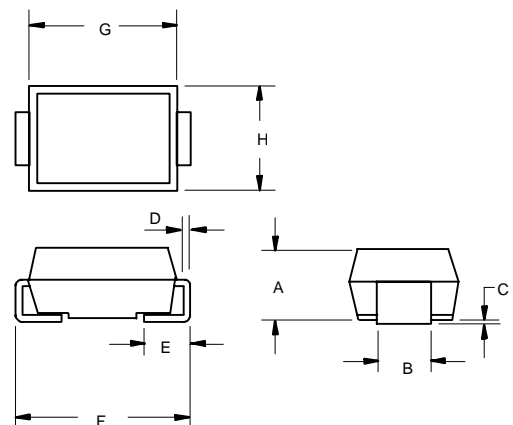
Peak Pulse Current on 10/1000us waveform	I_{PP}	See Table 1	Note: 2
Peak Pulse Power Dissipation	P_{PP}	1500W	Note: 2 3
Operation And Storage Temperature Range	T_J, T_{STG}	-55°C to +175°C	
Typical Thermal Resistance Junction to Lead	R_{thJL}	15°C/W	
Typical Thermal Resistance Junction to Ambient	R_{thJA}	75°C/W	

NOTES:

1. High Temperature Solder Exemptions Applied, see EU Directive Annex 7.
2. Non-repetitive current pulse, per Fig.3 and derated above $T_A=25^\circ C$ per Fig.2.
3. Mounted on 8.0mm² copper pads to each terminal.

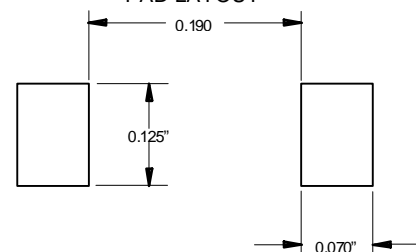
**Transient
Voltage Suppressor
6.8 to 550 Volts
1500 Watt**

**DO-214AB
(SMC) (LEAD FRAME)**



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.079	.103	2.00	2.62	
B	.108	.128	2.75	3.25	
C	.002	.008	0.051	0.203	
D	.006	.012	0.152	0.305	
E	.030	.060	0.76	1.52	
F	.305	.320	7.75	8.13	
G	.260	.280	6.60	7.11	
H	.220	.245	5.59	6.22	

**SUGGESTED SOLDER
PAD LAYOUT**



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ELECTRICAL CHARACTERISTICS @25°C

MCC PART NUMBER	REVERSE STAND-OFF VOLTAGE V_{WM} (VOLTS)	BREAKDOWN VOLTAGE $V_{(BR)}$ @ I_T (VOLTS)			MAXIMUM CLAMPING VOLTAGE @ I_{PP} (VOLTS)	PEAK PULSE CURRENT I_{PP} (AMPS)	MAXIMUM REVERSE LEAKAGE @ V_{WM} I_D (μ A)	MARKING CODE
		MIN	MAX	I_T (mA)				
SMCJ1.5KE6.8AHE3	5.80	6.45	7.14	10	10.5	144.8	1000	6V8A
SMCJ1.5KE7.5AHE3	6.40	7.13	7.88	10	11.3	134.5	500	7V5A
SMCJ1.5KE8.2AHE3	7.02	7.79	8.61	10	12.1	125.6	200	8V2A
SMCJ1.5KE9.1AHE3	7.78	8.65	9.55	1	13.4	113.4	50	9V1A
SMCJ1.5KE10AHE3	8.55	9.50	10.50	1	14.5	104.8	10	10A
SMCJ1.5KE11AHE3	9.40	10.50	11.60	1	15.6	97.4	5	11A
SMCJ1.5KE12AHE3	10.20	11.40	12.60	1	16.7	91.0	5	12A
SMCJ1.5KE13AHE3	11.10	12.40	13.70	1	18.2	83.5	5	13A
SMCJ1.5KE15AHE3	12.80	14.30	15.80	1	21.2	71.7	5	15A
SMCJ1.5KE16AHE3	13.60	15.20	16.80	1	22.5	67.6	5	16A
SMCJ1.5KE18AHE3	15.30	17.10	18.90	1	25.5	60.3	5	18A
SMCJ1.5KE20AHE3	17.10	19.00	21.00	1	27.7	54.9	5	20A
SMCJ1.5KE22AHE3	18.80	20.90	23.10	1	30.6	49.7	5	22A
SMCJ1.5KE24AHE3	20.50	22.80	25.20	1	33.2	45.8	5	24A
SMCJ1.5KE27AHE3	23.10	25.70	28.40	1	37.5	40.5	5	27A
SMCJ1.5KE30AHE3	25.60	28.50	31.50	1	41.4	36.7	5	30A
SMCJ1.5KE33AHE3	28.20	31.40	34.70	1	45.7	33.3	5	33A
SMCJ1.5KE36AHE3	30.80	34.20	37.80	1	49.9	30.5	5	36A
SMCJ1.5KE39AHE3	33.30	37.10	41.00	1	53.9	28.2	5	39A
SMCJ1.5KE43AHE3	36.80	40.90	45.20	1	59.3	25.6	5	43A
SMCJ1.5KE47AHE3	40.20	44.70	49.40	1	64.8	23.5	5	47A
SMCJ1.5KE51AHE3	43.60	48.50	53.60	1	70.1	21.7	5	51A
SMCJ1.5KE56AHE3	47.80	53.20	58.80	1	77.0	19.7	5	56A
SMCJ1.5KE62AHE3	53.00	58.90	65.10	1	85.0	17.9	5	62A
SMCJ1.5KE68AHE3	58.10	64.60	71.40	1	92.0	16.5	5	68A
SMCJ1.5KE75AHE3	64.10	71.30	78.80	1	103.0	14.8	5	75A
SMCJ1.5KE82AHE3	70.10	77.90	86.10	1	113.0	13.5	5	82A
SMCJ1.5KE91AHE3	77.80	86.50	95.50	1	125.0	12.2	5	91A
SMCJ1.5KE100AHE3	85.50	95.00	105.00	1	137.0	11.1	5	100A
SMCJ1.5KE110AHE3	94.00	105.00	116.00	1	152.0	10.0	5	110A
SMCJ1.5KE120AHE3	102.00	114.00	126.00	1	165.0	9.2	5	120A
SMCJ1.5KE130AHE3	111.00	124.00	137.00	1	179.0	8.5	5	130A
SMCJ1.5KE150AHE3	128.00	143.00	158.00	1	207.0	7.3	5	150A
SMCJ1.5KE160AHE3	136.00	152.00	168.00	1	219.0	6.9	5	160A
SMCJ1.5KE170AHE3	145.00	162.00	179.00	1	234.0	6.5	5	170A
SMCJ1.5KE180AHE3	154.00	171.00	189.00	1	246.0	6.2	5	180A
SMCJ1.5KE200AHE3	171.00	190.00	210.00	1	274.0	5.5	5	200A
SMCJ1.5KE220AHE3	185.00	209.00	231.00	1	328.0	4.6	5	220A
SMCJ1.5KE250AHE3	214.00	237.00	263.00	1	344.0	4.4	5	250A
SMCJ1.5KE300AHE3	256.00	285.00	315.00	1	414.0	3.7	5	300A
SMCJ1.5KE350AHE3	300.00	332.00	368.00	1	482.0	3.2	5	350A
SMCJ1.5KE400AHE3	342.00	380.00	420.00	1	548.0	2.8	5	400A
SMCJ1.5KE440AHE3	376.00	418.00	462.00	1	602.0	2.5	5	440A
SMCJ1.5KE480AHE3	408.00	456.00	504.00	1	658.0	2.3	5	480A
SMCJ1.5KE510AHE3	434.00	485.00	535.00	1	698.0	2.1	5	510A
SMCJ1.5KE530AHE3	477.00	503.50	556.50	1	725.0	2.1	5	530A
SMCJ1.5KE540AHE3	459.00	513.00	567.00	1	740.0	2.0	5	540A
SMCJ1.5KE550AHE3	495.00	522.50	577.50	1	760.0	2.0	5	550A

For bi-directional type having V_{rwm} of 10 volts and less, the I_R limit is double.
 The available parts are "A" type only, the parts without A (V_{BR} is $\pm 10\%$) is not available.

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ELECTRICAL CHARACTERISTICS @25°C

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		MIN	MAX	I_T (mA)				
SMCJ1.5KE6.8CAHE3	5.80	6.45	7.14	10	10.5	144.8	1000	6V8C
SMCJ1.5KE7.5CAHE3	6.40	7.13	7.88	10	11.3	134.5	500	7V5C
SMCJ1.5KE8.2CAHE3	7.02	7.79	8.61	10	12.1	125.6	200	8V2C
SMCJ1.5KE9.1CAHE3	7.78	8.65	9.55	1	13.4	113.4	50	9V1C
SMCJ1.5KE10CAHE3	8.55	9.50	10.50	1	14.5	104.8	10	10C
SMCJ1.5KE11CAHE3	9.40	10.50	11.60	1	15.6	97.4	5	11C
SMCJ1.5KE12CAHE3	10.20	11.40	12.60	1	16.7	91.0	5	12C
SMCJ1.5KE13CAHE3	11.10	12.40	13.70	1	18.2	83.5	5	13C
SMCJ1.5KE15CAHE3	12.80	14.30	15.80	1	21.2	71.7	5	15C
SMCJ1.5KE16CAHE3	13.60	15.20	16.80	1	22.5	67.6	5	16C
SMCJ1.5KE18CAHE3	15.30	17.10	18.90	1	25.5	60.3	5	18C
SMCJ1.5KE20CAHE3	17.10	19.00	21.00	1	27.7	54.9	5	20C
SMCJ1.5KE22CAHE3	18.80	20.90	23.10	1	30.6	49.7	5	22C
SMCJ1.5KE24CAHE3	20.50	22.80	25.20	1	33.2	45.8	5	24C
SMCJ1.5KE27CAHE3	23.10	25.70	28.40	1	37.5	40.5	5	27C
SMCJ1.5KE30CAHE3	25.60	28.50	31.50	1	41.4	36.7	5	30C
SMCJ1.5KE33CAHE3	28.20	31.40	34.70	1	45.7	33.3	5	33C
SMCJ1.5KE36CAHE3	30.80	34.20	37.80	1	49.9	30.5	5	36C
SMCJ1.5KE39CAHE3	33.30	37.10	41.00	1	53.9	28.2	5	39C
SMCJ1.5KE43CAHE3	36.80	40.90	45.20	1	59.3	25.6	5	43C
SMCJ1.5KE47CAHE3	40.20	44.70	49.40	1	64.8	23.5	5	47C
SMCJ1.5KE51CAHE3	43.60	48.50	53.60	1	70.1	21.7	5	51C
SMCJ1.5KE56CAHE3	47.80	53.20	58.80	1	77.0	19.7	5	56C
SMCJ1.5KE62CAHE3	53.00	58.90	65.10	1	85.0	17.9	5	62C
SMCJ1.5KE68CAHE3	58.10	64.60	71.40	1	92.0	16.5	5	68C
SMCJ1.5KE75CAHE3	64.10	71.30	78.80	1	103.0	14.8	5	75C
SMCJ1.5KE82CAHE3	70.10	77.90	86.10	1	113.0	13.5	5	82C
SMCJ1.5KE91CAHE3	77.80	86.50	95.50	1	125.0	12.2	5	91C
SMCJ1.5KE100CAHE3	85.50	95.00	105.00	1	137.0	11.1	5	100C
SMCJ1.5KE110CAHE3	94.00	105.00	116.00	1	152.0	10.0	5	110C
SMCJ1.5KE120CAHE3	102.00	114.00	126.00	1	165.0	9.2	5	120C
SMCJ1.5KE130CAHE3	111.00	124.00	137.00	1	179.0	8.5	5	130C
SMCJ1.5KE150CAHE3	128.00	143.00	158.00	1	207.0	7.3	5	150C
SMCJ1.5KE160CAHE3	136.00	152.00	168.00	1	219.0	6.9	5	160C
SMCJ1.5KE170CAHE3	145.00	162.00	179.00	1	234.0	6.5	5	170C
SMCJ1.5KE180CAHE3	154.00	171.00	189.00	1	246.0	6.2	5	180C
SMCJ1.5KE200CAHE3	171.00	190.00	210.00	1	274.0	5.5	5	200C
SMCJ1.5KE220CAHE3	185.00	209.00	231.00	1	328.0	4.6	5	220C
SMCJ1.5KE250CAHE3	214.00	237.00	263.00	1	344.0	4.4	5	250C
SMCJ1.5KE300CAHE3	256.00	285.00	315.00	1	414.0	3.7	5	300C
SMCJ1.5KE350CAHE3	300.00	332.00	368.00	1	482.0	3.2	5	350C
SMCJ1.5KE400CAHE3	342.00	380.00	420.00	1	548.0	2.8	5	400C
SMCJ1.5KE440CAHE3	376.00	418.00	462.00	1	602.0	2.5	5	440C
SMCJ1.5KE480CAHE3	408.00	456.00	504.00	1	658.0	2.3	5	480C
SMCJ1.5KE510CAHE3	434.00	485.00	535.00	1	698.0	2.1	5	510C
SMCJ1.5KE530CAHE3	477.00	503.50	556.50	1	725.0	2.1	5	530C
SMCJ1.5KE540CAHE3	459.00	513.00	567.00	1	740.0	2.0	5	540C
SMCJ1.5KE550CAHE3	495.00	522.50	577.50	1	760.0	2.0	5	550C

For bi-directional type having V_{RWM} of 10 volts and less, the I_R limit is double.
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Ratings and Characteristic Curves ($T_A = 25^\circ\text{C}$ unless otherwise noted)

Fig. 1 – Peak Pulse Power Rating Curve

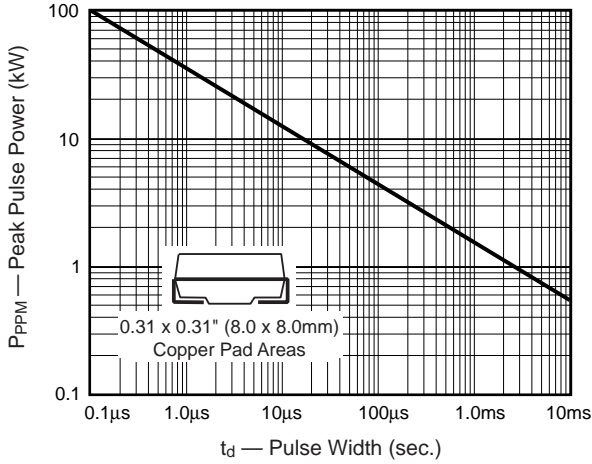


Fig. 2 – Pulse Derating Curve

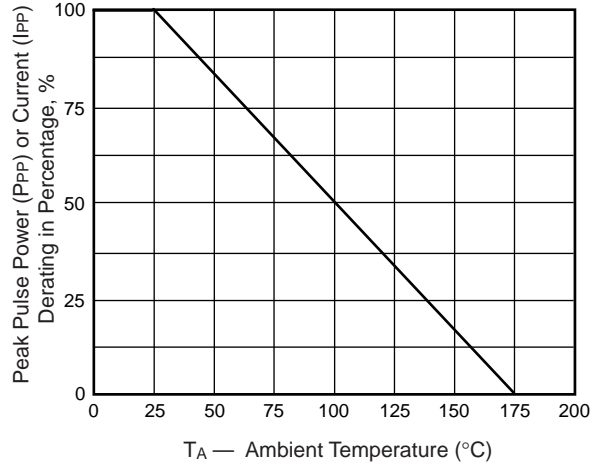


Fig. 3 – Pulse Waveform

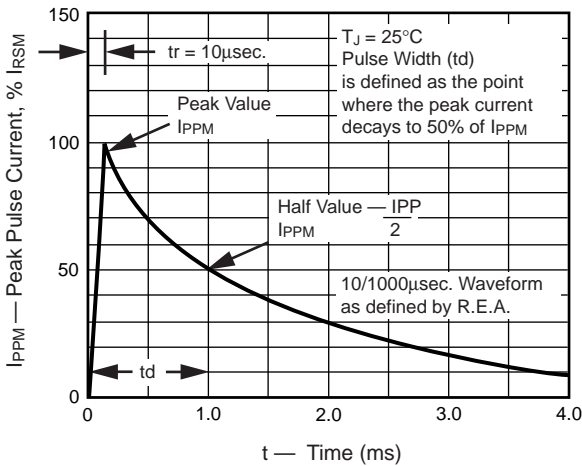


Fig. 4 – Typical Junction Capacitance Uni-Directional

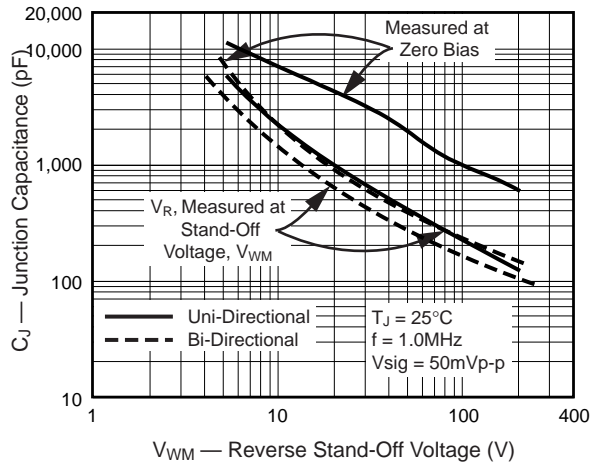
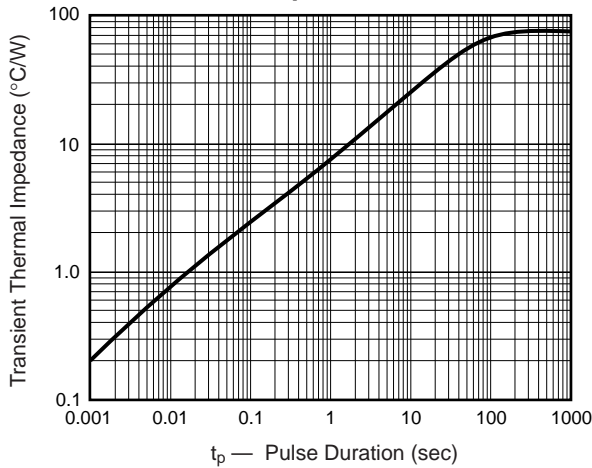


Fig. 5 – Typical Transient Thermal Impedance





Micro Commercial Components

Ordering Information :

Device	Packing
Part Number-TP	Tape&Reel: 3Kpcs/Reel

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