

SMCJLCE SERIES

V_{WM} : 6.5 - 170 Volts

P_{PP} : 1500 Watts

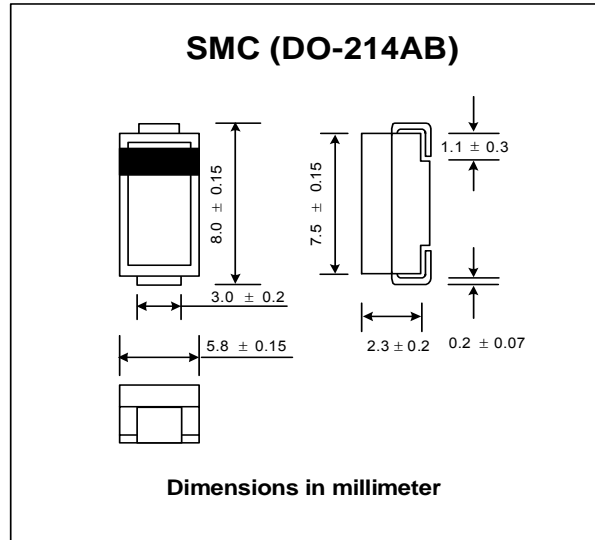
FEATURES :

- * 1500 Watts of Peak Pulse Power Dissipation
- * Available in stand-off voltage range of 6.5 to 170 V
- * Low Capacitance of 100 pF or less
- * Molding compound flammability rating : UL94V-O
- * **Pb / RoHS Free**

MECHANICAL DATA

- * Case : SMC Molded plastic
- * Epoxy : UL94V-O rate flame retardant
- * Lead : Lead Formed for Surface Mount
- * Polarity : Color band denotes cathode end except Bipolar.
- * Mounting position : Any
- * Weight : 0.21 gram

LOW CAPACITANCE TRANSIENT VOLTAGE SUPPRESSOR



MAXIMUM RATINGS

Rating at 25 °C ambient temperature unless otherwise specified

Rating	Symbol	Value	Unit
Peak Pulse Power Dissipation on 10/1000µs waveform (Note 1, Figure 1)	P _{PP}	1500	W
Steady State Power Dissipation at T _L = 75 °C Lead Lengths 0.375", (9.5mm) (Note 2)	P _D	5.0	W
Thermal Resistance (Junction to Lead)	R _{eJL}	20	°C/W
Operating and Storage Temperature Range	T _J , T _{STG}	- 65 to + 175	°C

Notes :

- (1) Non-repetitive Current pulse, per Fig. 3 and derated above Ta = 25 °C per Fig. 2
- (2) 8.3 ms single half sine-wave, duty cycle = 4 pulses per minutes maximum.

ELECTRICAL CHARACTERISTICS

Rating at 25 °C ambient temperature unless otherwise specified

Type Number	Reverse Stand-off Voltage	Breakdown Voltage @ $I_{(BR)}$			Maximum Reverse Leakage @ V_{WM}	Maximum Clamping Voltage @ I_{PP}	Maximum Peak Pulse Current @ 10/1000	Maximum Junction Capacitance @ 0 Volt	Working Inverse Blocking Voltage	Inverse Blocking Leakage Current	Peak Inverse Blocking Voltage
		V_{BR} (V)	$I_{(BR)}$								
	V_{WM} (V)	Min.	Max.	(mA)	I_D (μ A)	V_C (V)	I_{PP} (A)	pF	V_{WIB} (V)	I_{IB} (mA)	V_{PIB} (V)
SMCJLCE6.5	6.5	7.22	8.82	10	1000	12.3	100	75	75	1.0	100
SMCJLCE6.5A	6.5	7.22	7.98	10	1000	11.2	100	75	75	1.0	100
SMCJLCE7.0	7.0	7.78	9.51	10	500	13.3	100	75	75	1.0	100
SMCJLCE7.0A	7.0	7.78	8.60	10	500	12.0	100	75	75	1.0	100
SMCJLCE7.5	7.5	8.33	10.2	10	250	14.3	100	100	75	1.0	100
SMCJLCE7.5A	7.5	8.33	9.21	10	250	12.9	100	100	75	1.0	100
SMCJLCE8.0	8.0	8.89	10.9	10	100	15.0	100	100	75	1.0	100
SMCJLCE8.0A	8.0	8.89	9.83	1	100	13.6	100	100	75	1.0	100
SMCJLCE8.5	8.5	9.44	11.5	1	50	15.9	94	100	75	1.0	100
SMCJLCE8.5A	8.5	9.44	10.4	1	50	14.4	100	100	75	1.0	100
SMCJLCE9.0	9.0	10.0	12.2	1	10	16.9	89	100	75	1.0	100
SMCJLCE9.0A	9.0	10.0	11.1	1	10	15.4	97	100	75	1.0	100
SMCJLCE10	10	11.1	13.6	1	5	18.8	80	100	75	1.0	100
SMCJLCE10A	10	11.1	12.3	1	5	17.0	88	100	75	1.0	100
SMCJLCE11	11	12.2	14.9	1	5	20.1	74	100	75	1.0	100
SMCJLCE11A	11	12.2	13.5	1	5	18.2	82	100	75	1.0	100
SMCJLCE12	12	13.3	16.3	1	5	22.0	68	100	75	1.0	100
SMCJLCE12A	12	13.3	14.7	1	5	19.9	75	100	75	1.0	100
SMCJLCE13	13	14.4	17.6	1	5	23.8	63	100	75	1.0	100
SMCJLCE13A	13	14.4	15.9	1	5	21.5	70	100	75	1.0	100
SMCJLCE14	14	15.6	19.1	1	5	25.8	58	100	75	1.0	100
SMCJLCE14A	14	15.6	17.2	1	5	23.2	65	100	75	1.0	100
SMCJLCE15	15	16.7	20.4	1	5	26.9	56	100	75	1.0	100
SMCJLCE15A	15	16.7	18.5	1	5	24.4	61	100	75	1.0	100
SMCJLCE16	16	17.8	21.8	1	5	28.8	52	100	75	1.0	100
SMCJLCE16A	16	17.8	19.7	1	5	26.0	57	100	75	1.0	100
SMCJLCE17	17	18.9	23.1	1	5	30.5	49	100	75	1.0	100
SMCJLCE17A	17	18.9	20.9	1	5	27.6	54	100	75	1.0	100
SMCJLCE18	18	20.0	24.4	1	5	32.2	46	100	75	1.0	100
SMCJLCE18A	18	20.0	22.1	1	5	29.2	51	100	75	1.0	100
SMCJLCE20	20	22.2	27.1	1	5	35.8	42	100	75	1.0	100
SMCJLCE20A	20	22.2	24.5	1	5	32.4	46	100	75	1.0	100
SMCJLCE22	22	24.4	29.8	1	5	39.4	38	100	75	1.0	100
SMCJLCE22A	22	24.4	26.9	1	5	35.5	42	100	75	1.0	100
SMCJLCE24	24	26.7	32.6	1	5	43.0	35	100	75	1.0	100
SMCJLCE24A	24	26.7	29.5	1	5	38.9	39	100	75	1.0	100
SMCJLCE26	26	28.9	35.3	1	5	46.6	32	100	75	1.0	100
SMCJLCE26A	26	28.9	31.9	1	5	42.1	36	100	75	1.0	100
SMCJLCE28	28	31.1	38.0	1	5	50.1	30	100	75	1.0	100
SMCJLCE28A	28	31.1	34.4	1	5	45.5	33	100	75	1.0	100
SMCJLCE30	30	33.3	40.7	1	5	53.5	28	100	75	1.0	100
SMCJLCE30A	30	33.3	36.8	1	5	48.4	31	100	75	1.0	100
SMCJLCE33	33	36.7	44.9	1	5	59.0	25.4	100	75	1.0	100
SMCJLCE33A	33	36.7	40.6	1	5	53.3	28.1	100	75	1.0	100

ELECTRICAL CHARACTERISTICS

Rating at 25 °C ambient temperature unless otherwise specified

Type Number	Reverse Stand-off Voltage	Breakdown Voltage @ $I_{(BR)}$			Maximum Reverse Leakage @ V_{WM}	Maximum Clamping Voltage @ I_{PP}	Maximum Peak Pulse Current @ 10/1000	Maximum Junction Capacitance @ 0 Volt	Working Inverse Blocking Voltage	Inverse Blocking Leakage Current	Peak Inverse Blocking Voltage
	V_{WM}	V_{BR} (V)	$I_{(BR)}$	I_{D}	V_C	I_{PP}		V_{WIB}	I_{IB}	V_{PIB}	
	(V)	Min. Max.	(mA)	(μ A)	(V)	(A)	pF	(V)	mA	(V)	
SMCJLCE36	36	40.0 48.9	1	5	64.3	23.3	100	75	1.0	100	
SMCJLCE36A	36	40.0 44.2	1	5	58.1	25.8	100	75	1.0	100	
SMCJLCE40	40	44.4 54.3	1	5	71.4	21	100	75	1.0	100	
SMCJLCE40A	40	44.4 49.1	1	5	64.5	23.3	100	75	1.0	100	
SMCJLCE43	43	47.8 58.4	1	5	76.7	19.5	100	150	1.0	200	
SMCJLCE43A	43	47.8 52.8	1	5	69.4	21.6	100	150	1.0	200	
SMCJLCE45	45	50.0 61.1	1	5	80.3	18.7	100	150	1.0	200	
SMCJLCE45A	45	50.0 55.3	1	5	72.7	20.6	100	150	1.0	200	
SMCJLCE48	48	53.3 65.1	1	5	85.5	17.5	100	150	1.0	200	
SMCJLCE48A	48	53.3 58.9	1	5	77.4	19.4	100	150	1.0	200	
SMCJLCE51	51	56.7 69.3	1	5	91.1	16.5	100	150	1.0	200	
SMCJLCE51A	51	56.7 62.7	1	5	82.4	18.2	100	150	1.0	200	
SMCJLCE54	54	60.0 73.3	1	5	96.3	15.6	100	150	1.0	200	
SMCJLCE54A	54	60.0 66.3	1	5	87.1	17.2	100	150	1.0	200	
SMCJLCE58	58	64.4 78.7	1	5	103	14.6	100	150	1.0	200	
SMCJLCE58A	58	64.4 71.2	1	5	93.6	16	100	150	1.0	200	
SMCJLCE60	60	66.7 81.5	1	5	107	14	90	150	1.0	200	
SMCJLCE60A	60	66.7 73.7	1	5	96.8	15.5	90	150	1.0	200	
SMCJLCE64	64	71.1 86.9	1	5	114	13.2	90	150	1.0	200	
SMCJLCE64A	64	71.1 78.6	1	5	103	14.6	90	150	1.0	200	
SMCJLCE70	70	77.8 95.1	1	5	125	12.0	90	150	1.0	200	
SMCJLCE70A	70	77.8 86.0	1	5	113	13.3	90	150	1.0	200	
SMCJLCE75	75	83.3 102	1	5	134	11.2	90	150	1.0	200	
SMCJLCE75A	75	83.3 92.1	1	5	121	12.4	90	150	1.0	200	
SMCJLCE80	80	88.7 108	1	5	142	10.6	90	150	1.0	200	
SMCJLCE80A	80	88.7 98.0	1	5	129	11.6	90	150	1.0	200	
SMCJLCE90	90	100 122	1	5	160	9.4	90	300	1.0	200	
SMCJLCE90A	90	100 111	1	5	146	10.3	90	300	1.0	200	
SMCJLCE100	100	111 136	1	5	179	8.4	90	300	1.0	200	
SMCJLCE100A	100	111 123	1	5	162	9.3	90	300	1.0	200	
SMCJLCE110	110	122 149	1	5	196	7.7	90	300	1.0	400	
SMCJLCE110A	110	122 135	1	5	178	8.4	90	300	1.0	400	
SMCJLCE120	120	133 163	1	5	214	7.0	90	300	1.0	400	
SMCJLCE120A	120	133 147	1	5	193	7.8	90	300	1.0	400	
SMCJLCE130	130	144 176	1	5	231	6.5	90	300	1.0	400	
SMCJLCE130A	130	144 159	1	5	209	7.2	90	300	1.0	400	
SMCJLCE150	150	167 204	1	5	268	5.6	90	300	1.0	400	
SMCJLCE150A	150	167 185	1	5	243	6.2	90	300	1.0	400	
SMCJLCE160	160	178 218	1	5	287	5.2	90	300	1.0	400	
SMCJLCE160A	160	178 197	1	5	259	5.8	90	300	1.0	400	
SMCJLCE170	170	189 231	1	5	304	4.9	90	300	1.0	400	
SMCJLCE170A	170	189 209	1	5	275	5.4	90	300	1.0	400	

RATING AND CHARACTERISTIC CURVES (SMCJLCE Series)

FIG.1 - PEAK PULSE POWER VS. PULSE TIME

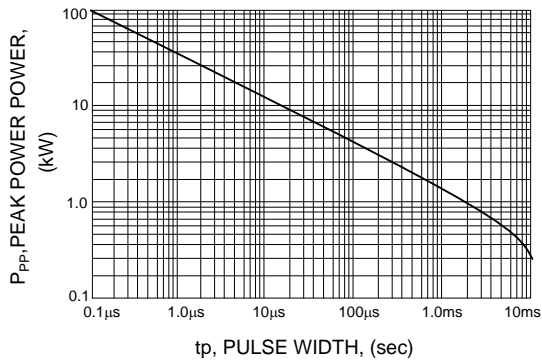


FIG.2 - DERATING CURVE

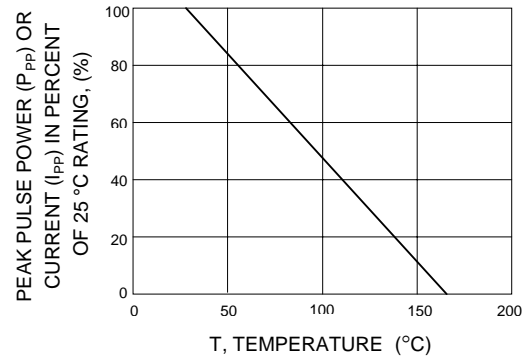


FIG.3 - PULSE WAVEFORM

