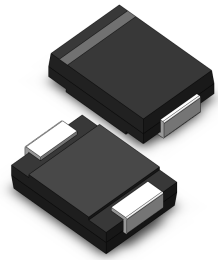
5.0SMDJ11A(CA) - 5.0SMDJ440A(CA)

SURFACE MOUNT TRANSIENT VOLTAGE SUPPRESSOR DIODES

VOLTAGE RANGE: 11 - 440V
POWER: 5000Watts



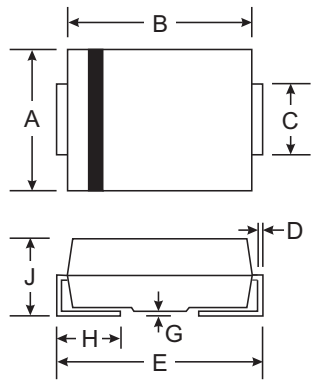
Features

- For surface mount application
- Built-in strain relief
- Excellent clamping capability
- Low profile package
- Fast response time: Typically less than
- 1.0ps from 0 volt to BV min.
  Typical I_R less than 1μA above 10V

Mechanical Data

- Case:DO-214AB(SMC)
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0
- Terminals: Lead Free Plating (Matte Tin Finish). Solderable per MIL-STD-202, Method 208
- Marking: Date Code and Marking Code
  See Page 2
- Weight: 0.21 grams (approximate)

RoHS COMPLIANT



SMC/DO-214AB		
Dim	**Min**	**Max**
A	5.59	6.22
B	6.60	7.11
C	2.75	3.18
D	0.15	0.31
E	7.75	8.13
G	0.10	0.20
H	0.76	1.52
J	2.00	2.62
All Dimensions in mm		

Maximum Ratings and Electrical Characteristics

T_A = 25°C unless otherwise specified

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

RATINGS	SYMBOL	VALUE	UNITS
Peak Power Dissipation at T_A=25°C, T_P=1ms(NOTE 1)	P_{PK}	Minimum 5000	Watts
Power Dissipation on infinite heatsink at T_L=75°C	P_D	6.5	Watts
Peak Forward Surge Current at 8.3ms Single Half Sine-Wave superimposed on rated load (JEDEC method) (NOTE 3)	I_{FSM}	300	Amps
Maximum Instantenous Forward Voltage at 100A for Unidirectional only	V_F	3.5/5.0	Volts
Operating and Storage Temperature Range	T_J, T_{STG}	-55 to +150	°C

NOTES:
1. Non-repetitive current pulse per Fig. 3 and derated above T_A=25°C per Fig. 2.
2. 8.3ms single half sine-wave, duty cycle = 4 pulses per minute maximum.
3. V_F<3.5V for devices of V_{BR}<200V and V_F<5.0V for devices of V_{BR}>201V.

Part Number (Uni)	Part Number (Bi)	Reverse Standoff Voltage	Breakdown Voltage V_{BR} @ I_T			Maximum Reverse Leakage @ VR	Maximum Peak Pulse Current	Maximum Clamping Voltage @ Ipp
		VR (V)	Min (V)	Max (V)	I_T (mA)	IR (μA)	Ipp (A)	Vc (V)
5.0SMDJ11	5.0SMDJ11C	11.0	12.20	14.90	10	800	248.76	20.1
5.0SMDJ11A	5.0SMDJ11CA	11.0	12.20	13.50	10	800	274.73	18.2
5.0SMDJ12	5.0SMDJ12C	12.0	13.30	16.30	10	800	227.27	22.0
5.0SMDJ12A	5.0SMDJ12CA	12.0	13.30	14.70	10	800	251.26	19.9
5.0SMDJ13	5.0SMDJ13C	13.0	14.40	17.60	10	500	210.08	23.8
5.0SMDJ13A	5.0SMDJ13CA	13.0	14.40	15.90	10	500	232.56	21.5
5.0SMDJ14	5.0SMDJ14C	14.0	15.60	19.10	10	200	193.80	25.8
5.0SMDJ14A	5.0SMDJ14CA	14.0	15.60	17.20	10	200	215.52	23.2
5.0SMDJ15	5.0SMDJ15C	15.0	16.70	20.40	1	100	185.87	26.9
5.0SMDJ15A	5.0SMDJ15CA	15.0	16.70	18.50	1	100	204.92	24.4
5.0SMDJ16	5.0SMDJ16C	16.0	17.80	21.80	1	50	173.61	28.8
5.0SMDJ16A	5.0SMDJ16CA	16.0	17.80	19.70	1	50	192.31	26.0
5.0SMDJ17	5.0SMDJ17C	17.0	18.90	23.10	1	20	163.93	30.5
5.0SMDJ17A	5.0SMDJ17CA	17.0	18.90	20.90	1	20	181.16	27.6
5.0SMDJ18	5.0SMDJ18C	18.0	20.00	24.40	1	10	155.28	32.2
5.0SMDJ18A	5.0SMDJ18CA	18.0	20.00	22.10	1	10	171.23	29.2
5.0SMDJ19	5.0SMDJ19C	19.0	21.10	25.76	1	10	147.06	34.0
5.0SMDJ19A	5.0SMDJ19CA	19.0	21.10	23.30	1	10	162.34	30.8
5.0SMDJ20	5.0SMDJ20C	20.0	22.20	27.10	1	5	139.66	35.8
5.0SMDJ20A	5.0SMDJ20CA	20.0	22.20	24.50	1	5	154.32	32.4
5.0SMDJ22	5.0SMDJ22C	22.0	24.40	29.80	1	5	126.90	39.4
5.0SMDJ22A	5.0SMDJ22CA	22.0	24.40	26.90	1	5	140.85	35.5
5.0SMDJ24	5.0SMDJ24C	24.0	26.70	32.60	1	5	116.28	43.0
5.0SMDJ24A	5.0SMDJ24CA	24.0	26.70	29.50	1	5	128.53	38.9
5.0SMDJ26	5.0SMDJ26C	26.0	28.90	35.30	1	5	107.30	46.6
5.0SMDJ26A	5.0SMDJ26CA	26.0	28.90	31.90	1	5	118.76	42.1
5.0SMDJ28	5.0SMDJ28C	28.0	31.10	38.00	1	5	100.00	50.0
5.0SMDJ28A	5.0SMDJ28CA	28.0	31.10	34.40	1	5	110.13	45.4
5.0SMDJ30	5.0SMDJ30C	30.0	33.30	40.70	1	5	93.46	53.5
5.0SMDJ30A	5.0SMDJ30CA	30.0	33.30	36.80	1	5	103.31	48.4
5.0SMDJ33	5.0SMDJ33C	33.0	36.70	44.90	1	5	84.75	59.0
5.0SMDJ33A	5.0SMDJ33CA	33.0	36.70	40.60	1	5	93.81	53.3
5.0SMDJ36	5.0SMDJ36C	36.0	40.00	48.90	1	5	77.76	64.3
5.0SMDJ36A	5.0SMDJ36CA	36.0	40.00	44.20	1	5	86.06	58.1
5.0SMDJ40	5.0SMDJ40C	40.0	44.40	54.30	1	5	70.03	71.4
5.0SMDJ40A	5.0SMDJ40CA	40.0	44.40	49.10	1	5	77.52	64.5
5.0SMDJ43	5.0SMDJ43C	43.0	47.80	58.40	1	5	65.19	76.7
5.0SMDJ43A	5.0SMDJ43CA	43.0	47.80	52.80	1	5	72.05	69.4
5.0SMDJ45	5.0SMDJ45C	45.0	50.00	61.10	1	5	62.27	80.3
5.0SMDJ45A	5.0SMDJ45CA	45.0	50.00	55.30	1	5	68.78	72.7
5.0SMDJ48	5.0SMDJ48C	48.0	53.30	65.10	1	5	58.48	85.5
5.0SMDJ48A	5.0SMDJ48CA	48.0	53.30	58.90	1	5	64.60	77.4
5.0SMDJ51	5.0SMDJ51C	51.0	56.70	69.30	1	5	54.88	91.1
5.0SMDJ51A	5.0SMDJ51CA	51.0	56.70	62.70	1	5	60.68	82.4
5.0SMDJ54	5.0SMDJ54C	54.0	60.00	73.30	1	5	51.92	96.3
5.0SMDJ54A	5.0SMDJ54CA	54.0	60.00	66.30	1	5	57.41	87.1
5.0SMDJ58	5.0SMDJ58C	58.0	64.40	78.70	1	5	48.54	103.0
5.0SMDJ58A	5.0SMDJ58CA	58.0	64.40	71.20	1	5	53.42	93.6
5.0SMDJ60	5.0SMDJ60C	60.0	66.70	81.50	1	5	46.73	107.0
5.0SMDJ60A	5.0SMDJ60CA	60.0	66.70	73.70	1	5	51.65	96.8
5.0SMDJ64	5.0SMDJ64C	64.0	71.10	86.40	1	5	43.86	114.0
5.0SMDJ64A	5.0SMDJ64CA	64.0	71.10	78.60	1	5	48.54	103.0

Part Number (Uni)	Part Number (Bi)	Reverse Standoff Voltage	Breakdown Voltage V_{BR} @ I_T			Maximum Reverse Leakage @ VR	Maximum Peak Pulse Current	Maximum Clamping Voltage @ Ipp
		VR (V)	Min (V)	Max (V)	I_T (mA)	IR (μA)	Ipp (A)	Vc (V)
5.0SMDJ70	5.0SMDJ70C	70.0	77.80	95.10	1	5	40.00	125.0
5.0SMDJ70A	5.0SMDJ70CA	70.0	77.80	86.00	1	5	44.25	113.0
5.0SMDJ75	5.0SMDJ75C	75.0	83.30	102.00	1	5	37.31	134.0
5.0SMDJ75A	5.0SMDJ75CA	75.0	83.30	92.10	1	5	41.32	121.0
5.0SMDJ78	5.0SMDJ78C	78.0	86.70	106.00	1	5	35.97	139.0
5.0SMDJ78A	5.0SMDJ78CA	78.0	86.70	95.80	1	5	39.68	126.0
5.0SMDJ85	5.0SMDJ85C	85.0	94.40	115.00	1	5	33.11	151.0
5.0SMDJ85A	5.0SMDJ85CA	85.0	94.40	104.00	1	5	36.50	137.0
5.0SMDJ90	5.0SMDJ90C	90.0	100.00	122.00	1	5	31.25	160.0
5.0SMDJ90A	5.0SMDJ90CA	90.0	100.00	111.00	1	5	34.25	146.0
5.0SMDJ100	5.0SMDJ100C	100.0	111.00	136.00	1	5	27.93	179.0
5.0SMDJ100A	5.0SMDJ100CA	100.0	111.00	123.00	1	5	30.86	162.0
5.0SMDJ110	5.0SMDJ110C	110.0	122.00	149.00	1	5	25.51	196.0
5.0SMDJ110A	5.0SMDJ110CA	110.0	122.00	135.00	1	5	28.25	177.0
5.0SMDJ120	5.0SMDJ120C	120.0	133.00	163.00	1	5	23.36	214.0
5.0SMDJ120A	5.0SMDJ120CA	120.0	133.00	147.00	1	5	25.91	193.0
5.0SMDJ130	5.0SMDJ130C	130.0	144.00	176.00	1	5	21.65	231.0
5.0SMDJ130A	5.0SMDJ130CA	130.0	144.00	159.00	1	5	23.92	209.0
5.0SMDJ150	5.0SMDJ150C	150.0	167.00	204.00	1	5	18.66	268.0
5.0SMDJ150A	5.0SMDJ150CA	150.0	167.00	185.00	1	5	20.58	243.0
5.0SMDJ160	5.0SMDJ160C	160.0	178.00	218.00	1	5	17.42	287.0
5.0SMDJ160A	5.0SMDJ160CA	160.0	178.00	197.00	1	5	19.31	259.0
5.0SMDJ170	5.0SMDJ170C	170.0	189.00	231.00	1	5	16.45	304.0
5.0SMDJ170A	5.0SMDJ170CA	170.0	189.00	209.00	1	5	18.18	275.0
5.0SMDJ180	5.0SMDJ180C	180.0	200.00	244.00	1	5	15.52	322.2
5.0SMDJ180A	5.0SMDJ180CA	180.0	200.00	220.00	1	5	17.15	291.6
5.0SMDJ190	5.0SMDJ190C	190.0	211.00	258.00	1	5	14.70	340.1
5.0SMDJ190A	5.0SMDJ190CA	190.0	211.00	232.00	1	5	16.24	307.8
5.0SMDJ200A	5.0SMDJ200CA	200.0	224.00	247.00	1	5	15.43	324.0
5.0SMDJ220A	5.0SMDJ220CA	220.0	246.00	272.00	1	5	14.04	356.0
5.0SMDJ250A	5.0SMDJ250CA	250.0	279.00	309.00	1	5	12.35	405.0
5.0SMDJ300A	5.0SMDJ300CA	300.0	335.00	371.00	1	5	10.29	486.0
5.0SMDJ350A	5.0SMDJ350CA	350.0	391.00	432.00	1	5	8.82	567.0
5.0SMDJ400A	5.0SMDJ400CA	400.0	447.00	494.00	1	5	7.72	648.0
5.0SMDJ440A	5.0SMDJ440CA	440.0	492.00	543.00	1	5	7.01	713.0

RATING AND CHARACTERISTIC CURVES (5.0SMDJ SERIES)

FIG.1-PEAK PULSE POWER DERATING CURVE

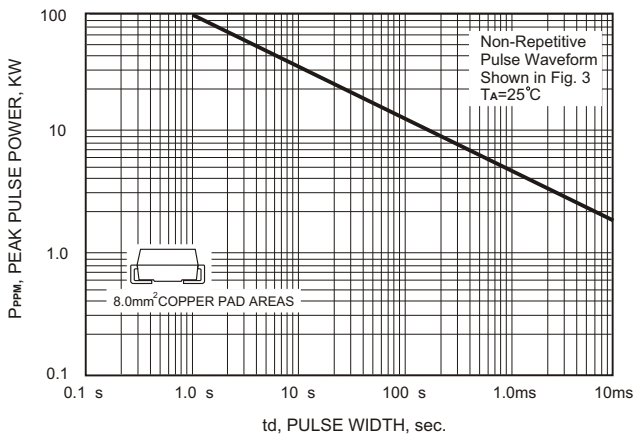


FIG.2-PULSE DERATING CURVE

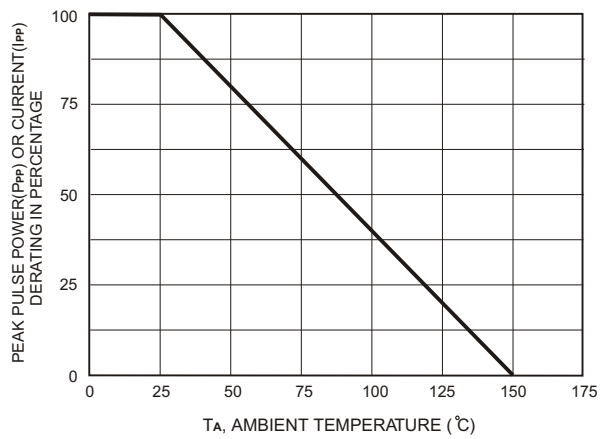


FIG.3-PULSE WAVE FORM

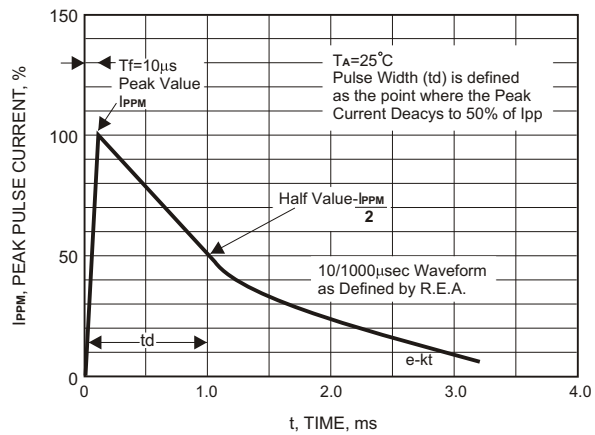


FIG.4-TYPICAL JUNCTION CAPACITANCE

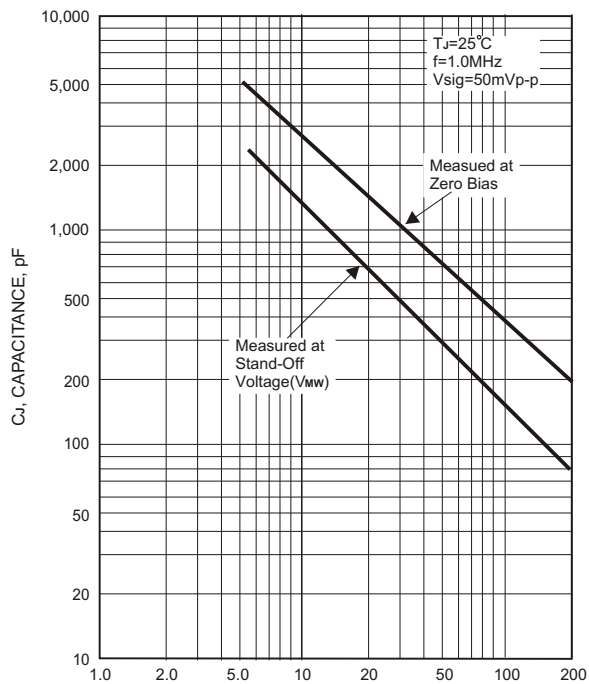


FIG.5-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

