

Surface Mount Transient Voltage Suppressors (TVS)

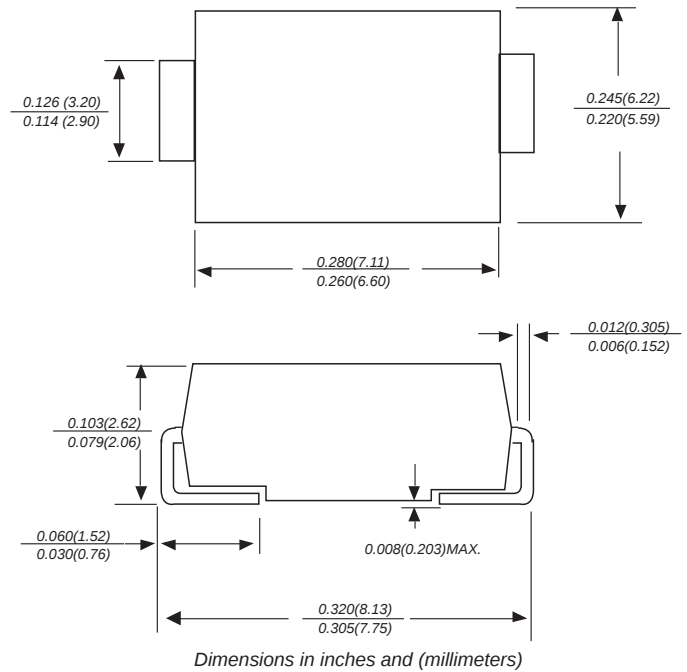
Features

- Glass Passivated Die Construction
- Uni- and Bi-Directional Versions Available
- Excellent Clamping Capability
- Fast Response Time
- Plastic Case Material has UL Flammability Classification Rating 94V-O

Mechanical Data

- Case: SMC/DO-214AB, Molded Plastic
- Terminals: Solder Plated, Solderable per MIL-STD-750, Method 2026
- Polarity: Cathode Band or Cathode Notch
- Marking: Type Number
- Weight: 0.21 grams (approx.)

DO-214AB/SMC



Maximum Ratings $T_A = 25^\circ\text{C}$ unless otherwise specified

Characteristic	Symbol	Value	Unit
Peak Pulse Power Dissipation 10/1000 μs Waveform (Note 1, 2) Figure 3	PPPM	3000	W
Peak Pulse Current on 10/1000 μs Waveform (Note 1) Figure 4	IPPM	See Table 1	A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method) (Note 2, 3)	IFSM	100	A
Operating and Storage Temperature Range	T_j, T_{STG}	-55 to +150	$^\circ\text{C}$

Note:

1. Non-repetitive current pulse, per Figure 4 and derated above $T_A = 25^\circ\text{C}$ per Figure 1.
2. Mounted on 8.0mm² copper pads to each terminal.
3. Measured on 8.3ms single half sine-wave or equivalent square wave, duty cycle = 4 pulses per minutes maximum.



ELECTRICAL CHARACTERISTICS $T_A = 25^\circ\text{C}$, continued

Type Number		Marking		Reverse Stand-Off Voltage	Breakdown Voltage Min. @ I_T	Breakdown Voltage Max. @ I_T	Test Current	Maximum Clamping Voltage @ I_{PP}	Peak Pulse Current	Reverse Leakage @ V_{RMW}
(Uni)	(Bi)	(Uni)	(Bi)	$V_{RMW}(V)$	$V_{BR\ MIN}^{(V)}$	$V_{BR\ MAX}^{(V)}$	$I_T\ (mA)$	$V_C(V)$	$I_{PP}(A)$	$I_R(\mu A)$
SMDJ5.0A	SMDJ5.0CA	HDE	IDE	5.0	6.40	7.00	10	9.2	326.1	800
SMDJ6.0A	SMDJ6.0CA	HDG	IDG	6.0	6.67	7.37	10	10.3	291.3	800
SMDJ6.5A	SMDJ6.5CA	HDK	IDK	6.5	7.22	7.98	10	11.2	267.9	500
SMDJ7.0A	SMDJ7.0CA	HDM	IDM	7.0	7.78	8.60	10	12.0	250.0	200
SMDJ7.5A	SMDJ7.5CA	HDP	IDP	7.5	8.33	9.21	1	12.9	232.6	100
SMDJ8.0A	SMDJ8.0CA	HDR	IDR	8.0	8.89	9.83	1	13.6	220.6	50
SMDJ8.5A	SMDJ8.5CA	HDT	IDT	8.5	9.44	10.40	1	14.4	208.3	20
SMDJ9.0A	SMDJ9.0CA	HDV	IDV	9.0	10.00	11.10	1	15.4	194.8	10
SMDJ10A	SMDJ10CA	HDX	IDX	10.0	11.10	12.30	1	17.0	176.5	5
SMDJ11A	SMDJ11CA	HDZ	IDZ	11.0	12.20	13.50	1	18.2	164.8	1
SMDJ12A	SMDJ12CA	HEE	IEE	12.0	13.30	14.70	1	19.9	150.8	1
SMDJ13A	SMDJ13CA	HEG	IEG	13.0	14.40	15.90	1	21.5	139.5	1
SMDJ14A	SMDJ14CA	HEK	IEK	14.0	15.60	17.20	1	23.2	129.3	1
SMDJ15A	SMDJ15CA	HEM	IEM	15.0	16.70	18.50	1	24.4	123.0	1
SMDJ16A	SMDJ16CA	HEP	IEP	16.0	17.80	19.70	1	26.0	115.4	1
SMDJ17A	SMDJ17CA	HER	IER	17.0	18.90	20.90	1	27.6	108.7	1
SMDJ18A	SMDJ18CA	HET	IET	18.0	20.00	22.10	1	29.2	102.7	1
SMDJ20A	SMDJ20CA	HEV	IEV	20.0	22.20	24.50	1	32.4	92.6	1
SMDJ22A	SMDJ22CA	HEX	IEX	22.0	24.40	26.90	1	35.5	84.5	1
SMDJ24A	SMDJ24CA	HEZ	IEZ	24.0	26.70	29.50	1	38.9	77.1	1
SMDJ26A	SMDJ26CA	HFE	IFE	26.0	28.90	31.90	1	42.1	71.3	1
SMDJ28A	SMDJ28CA	HFG	IFG	28.0	31.10	34.40	1	45.4	66.1	1
SMDJ30A	SMDJ30CA	HFK	IFK	30.0	33.50	36.80	1	48.4	62.0	1
SMDJ33A	SMDJ33CA	HFM	IFM	33.0	36.70	40.60	1	53.3	56.3	1
SMDJ36A	SMDJ36CA	HFP	IFP	36.0	40.00	44.20	1	58.1	51.6	1
SMDJ40A	SMDJ40CA	HFR	IFR	40.0	44.40	49.10	1	64.5	46.5	1
SMDJ43A	SMDJ43CA	HFT	IFT	43.0	47.80	52.80	1	69.4	43.2	1
SMDJ45A	SMDJ45CA	HFV	IFV	45.0	50.00	55.30	1	72.7	41.3	1
SMDJ48A	SMDJ48CA	HPX	IFX	48.0	53.30	58.90	1	77.4	38.8	1
SMDJ51A	SMDJ51CA	HFZ	IFZ	51.0	56.70	62.70	1	82.4	36.4	1
SMDJ54A	SMDJ54CA	HGE	IGE	54.0	60.00	66.30	1	87.1	34.4	1
SMDJ58A	SMDJ58CA	HGG	IGG	58.0	64.40	71.20	1	93.6	32.1	1
SMDJ60A	SMDJ60CA	HGK	IGK	60.0	66.70	73.70	1	96.8	31.0	1
SMDJ64A	SMDJ64CA	HGM	IGM	64.0	71.10	78.60	1	103.0	29.1	1
SMDJ70A	SMDJ70CA	HGP	IGP	70.0	77.80	86.00	1	113.0	26.5	1
SMDJ75A	SMDJ75CA	HGR	IGR	75.0	83.30	92.10	1	121.0	24.8	1
SMDJ78A	SMDJ78CA	HGT	IGT	78.0	86.70	95.80	1	126.0	23.8	1
SMDJ85A	SMDJ85CA	HGV	IGV	85.0	94.4	104.0	1	137.0	21.9	1
SMDJ90A	SMDJ90CA	HGX	IGX	90.0	100.0	111.0	1	146.0	20.5	1
SMDJ100A	SMDJ100CA	HGZ	IGZ	100.0	111.0	123.0	1	162.0	18.5	1
SMDJ110A	SMDJ110CA	HHE	IHE	110.0	122.0	135.0	1	177.0	16.9	1

Type Number		Marking		Reverse Stand-Off Voltage	Breakdown Voltage Min. @I _T	Breakdown Voltage Max. @ I _T	Test Current	Maximum Clamping Voltage @I _{PP}	Peak Pulse Current	Reverse Leakage @V _{RMW}
(Uni)	(Bi)	(Uni)	(Bi)	V _{RMW} (V)	V _{BR MIN} ^(V)	V _{BR MAX} ^(V)	I _T (mA)	V _C (V)	I _{PP} (A)	I _R (uA)
SMDJ120A	SMDJ120CA	HHG	IHG	120.0	133.0	147.0	1	193.0	15.5	1
SMDJ130A	SMDJ130CA	HHK	IHK	130.0	144.0	159.0	1	209.0	14.4	1
SMDJ150A	SMDJ150CA	HHM	IHM	150.0	167.0	185.0	1	243.0	12.3	1
SMDJ160A	SMDJ160CA	HHP	IHP	160.0	178.0	197.0	1	259.0	11.6	1
SMDJ170A	SMDJ170CA	HHR	IHR	170.0	189.0	209.0	1	275.0	10.9	1
SMDJ180A	SMDJ180CA	HIE	IIE	180.0	201.0	222.0	1	292.0	10.3	1
SMDJ190A	SMDJ190CA	HIG	IIG	190.0	209.0	243.0	1	308.0	9.7	1
SMDJ200A	SMDJ200CA	HIK	IIK	200.0	224.0	247.0	1	324.0	9.3	1
SMDJ210A	SMDJ210CA	HIM	IIM	210.0	231.0	268.0	1	340.0	8.8	1
SMDJ220A	SMDJ220CA	HIP	IIP	220.0	246.0	272.0	1	356.0	8.4	1
SMDJ250A	SMDJ250CA	HIR	IIR	250.0	279.0	309.0	1	405.0	7.4	1
SMDJ300A	SMDJ300CA	HIT	IIT	300.0	335.0	371.0	1	486.0	6.2	1
SMDJ350A	SMDJ350CA	HIV	IIV	350.0	391.0	432.0	1	567.0	5.3	1
SMDJ400A	SMDJ400CA	HIX	IIX	400.0	447.0	494.0	1	648.0	4.6	1
SMDJ440A	SMDJ440CA	HIZ	IIZ	440.0	492.0	543.0	1	713.0	4.2	1

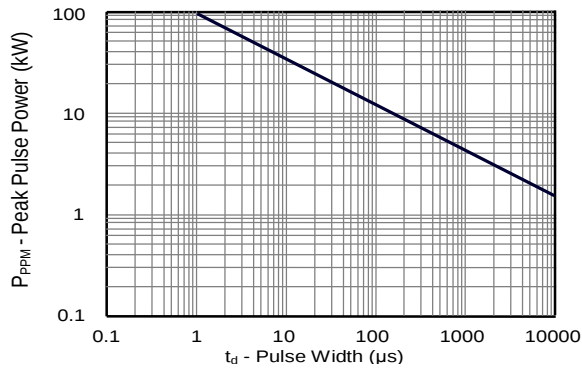


Figure 1 -PeakPulsePower Rating Curve

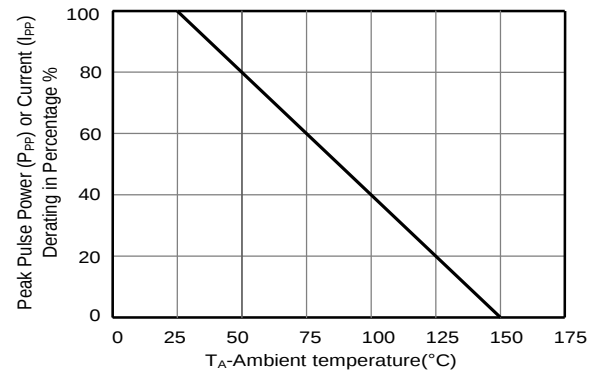


Figure 2 -Pulse DeratingCurve

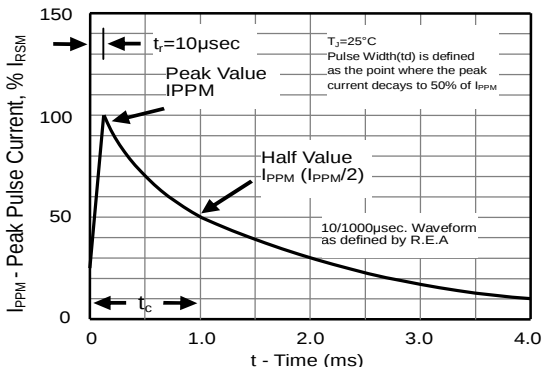


Figure 3 -Pulse Waveform

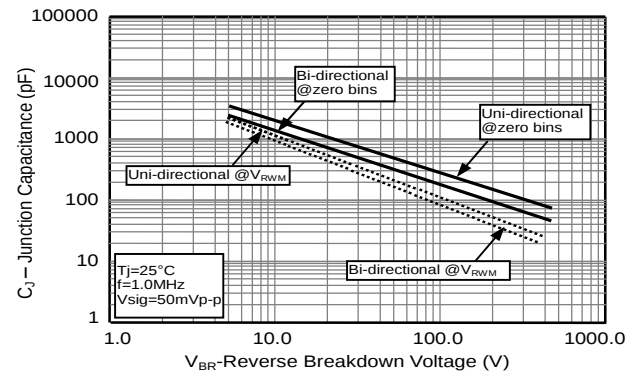


Figure 4 -TypicalJunction Capacitance

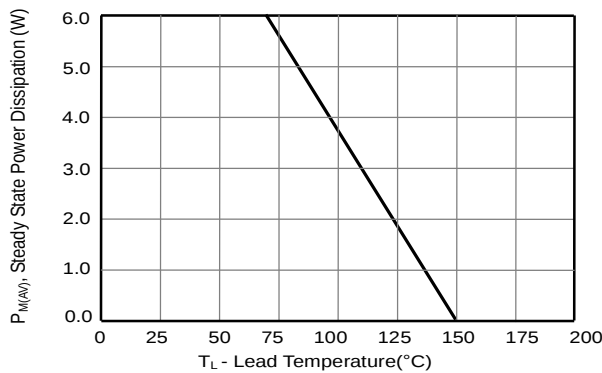


Figure 5-SteadyStatePower Derating Curve

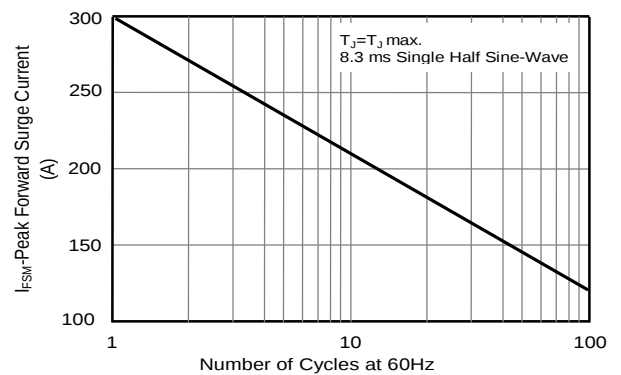
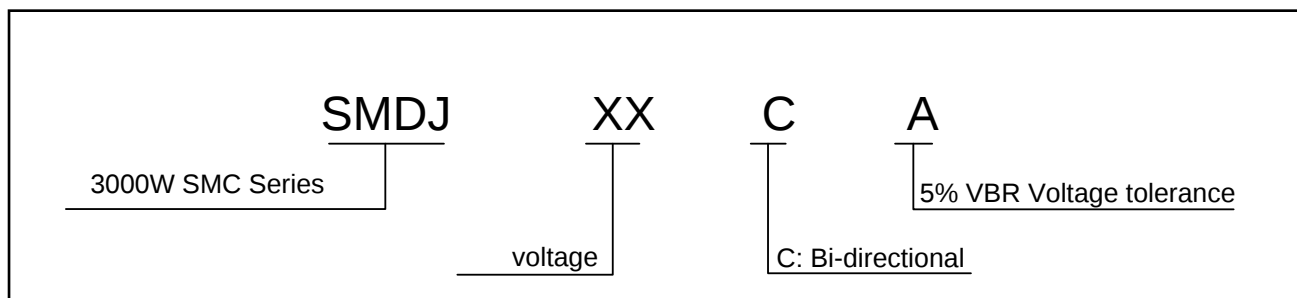


Figure 6 -Maximum Non-RepetitiveSurge Current

Ordering Information



Disclaimer

The information presented in this document is for reference only. Jiangsu Boye Chuangxin Semiconductor Co., Ltd. reserves the right to make changes without notice for the specification of the products displayed herein to improve reliability, function or design or otherwise.

The product listed herein is designed to be used with ordinary electronic equipment or devices, and not designed to be used with equipment or devices which require high level of reliability and the malfunction of which would directly endanger human life (such as medical instruments, transportation equipment, aerospace machinery, nuclear-reactor controllers, fuel controllers and other safety devices), Boye Chuangxin or anyone on its behalf, assumes no responsibility or liability for any damages resulting from such improper use of sale.

This publication supersedes & replaces all information previously supplied. For additional information, please visit our website <http://www.bycxdiode.com>, Or consult the nearest Sales Office for further assistance.