

Description

The SMDJ series are transient voltage suppressor designed to protect sensitive electronic equipment from lightning and transient voltage events.

Features

- 3000W Peak Pulse Power (10/1000µs)
- Fast Response Time: <1ns
- Unidirectional or Bidirectional Configuration
- Low Profile Package
- Complies with following standards:
 - IEC 61000-4-2 (ESD) immunity test
 - Air discharge: ±30kV
 - Contact discharge: ±30kV
- RoHS Compliant

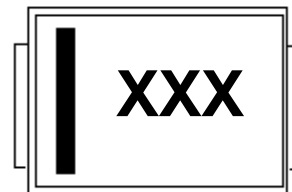
Mechanical Characteristics

- Package: DO-214AB
- Lead Finish: Matte Tin
- Case Material: “Green” Molding Compound.
- Terminal Connections: See Diagram Below
- Marking Information: See Below

Applications

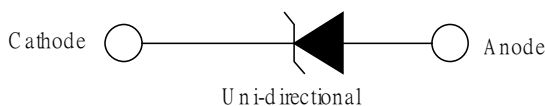
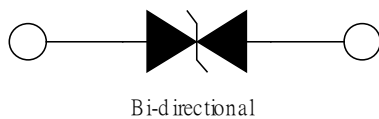
- Telecom
- Computer
- Industrial
- Consumer Electronics

Marking Information



XXX = Device Marking Code
 Bar Denotes Cathode
 (for unidirectional only)

Device Schematic



Device Schematic

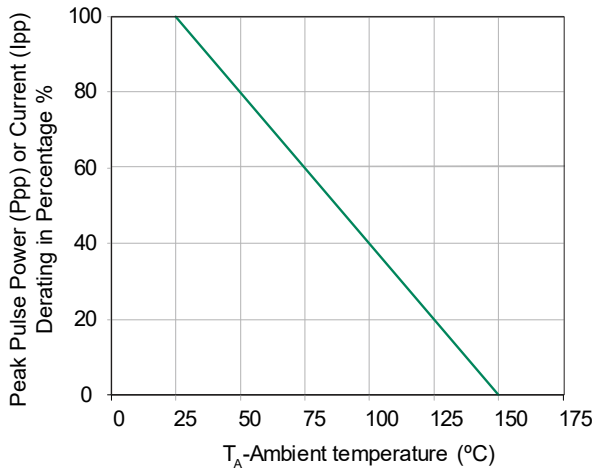
Ordering Information

Part Number	Packaging	Reel Size
SMDJxx(C)A	3000/Tape & Reel	13 inch

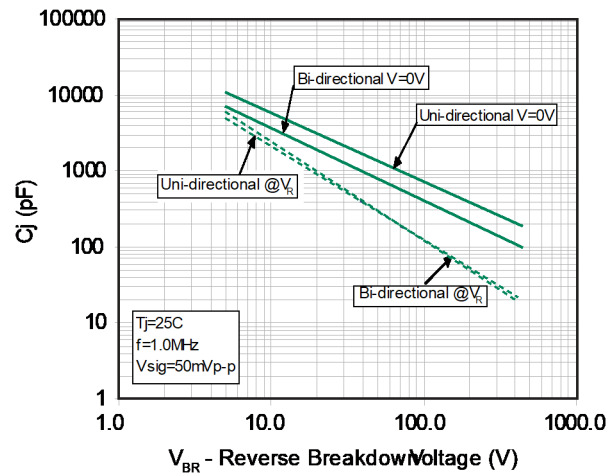
Electrical Characteristics (T_A=25°C unless otherwise specified)

Part Number		Device Marking Code		Reverse Stand-off Voltage	Breakdown Voltage VBR @ IT		Test Current	Max. Clamping Voltage @ IPP	Max. Peak Pulse Current	Max. Reverse Leakage @ VRWM
UNI-POLAR	BI-POLAR	UNI	BI	VRWM(V)	Min.(V)	Max.(V)	IT(mA)	VC MAX.(V)	IPP(A)	IR(μA)
SMDJ5.0A	SMDJ5.0CA	RDE	DDE	5.0	6.40	7.00	10	9.2	326.1	800
SMDJ6.0A	SMDJ6.0CA	RDG	DDG	6.0	6.67	7.37	10	10.3	291.3	800
SMDJ6.5A	SMDJ6.5CA	RDK	DDK	6.5	7.22	7.98	10	11.2	267.9	500
SMDJ7.0A	SMDJ7.0CA	PDM	DDM	7.0	7.78	8.60	10	12.0	250.0	200
SMDJ7.5A	SMDJ7.5CA	PDP	DDP	7.5	8.33	9.21	1	12.9	232.6	100
SMDJ8.0A	SMDJ8.0CA	PDR	DDR	8.0	8.89	9.83	1	13.6	220.6	50
SMDJ8.5A	SMDJ8.5CA	PDT	DDT	8.5	9.44	10.40	1	14.4	208.3	20
SMDJ9.0A	SMDJ9.0CA	PDV	DDV	9.0	10.00	11.10	1	15.4	194.8	10
SMDJ10A	SMDJ10CA	PDX	DDX	10.0	11.10	12.30	1	17.0	176.5	5
SMDJ11A	SMDJ11CA	PDZ	DDZ	11.0	12.20	13.50	1	18.2	164.8	1
SMDJ12A	SMDJ12CA	PEE	DEE	12.0	13.30	14.70	1	19.9	150.8	1
SMDJ13A	SMDJ13CA	PEG	DEG	13.0	14.40	15.90	1	21.5	139.5	1
SMDJ14A	SMDJ14CA	PEK	DEK	14.0	15.60	17.20	1	23.2	129.3	1
SMDJ15A	SMDJ15CA	PEM	DEM	15.0	16.70	18.50	1	24.4	123.0	1
SMDJ16A	SMDJ16CA	PEP	DEP	16.0	17.80	19.70	1	26.0	115.4	1
SMDJ17A	SMDJ17CA	PER	DER	17.0	18.90	20.90	1	27.6	108.7	1
SMDJ18A	SMDJ18CA	PET	DET	18.0	20.00	22.10	1	29.2	102.7	1
SMDJ20A	SMDJ20CA	PEV	DEV	20.0	22.20	24.50	1	32.4	92.6	1
SMDJ22A	SMDJ22CA	PEX	DEX	22.0	24.40	26.90	1	35.5	84.5	1
SMDJ24A	SMDJ24CA	PEZ	DEZ	24.0	26.70	29.50	1	38.9	77.1	1
SMDJ26A	SMDJ26CA	PFE	DFE	26.0	28.90	31.90	1	42.1	71.3	1
SMDJ28A	SMDJ28CA	PFG	DFG	28.0	31.10	34.40	1	45.4	66.1	1
SMDJ30A	SMDJ30CA	PFK	DFK	30.0	33.50	36.80	1	48.4	62.0	1
SMDJ33A	SMDJ33CA	PFM	DFM	33.0	36.70	40.60	1	53.3	56.3	1
SMDJ36A	SMDJ36CA	PFP	DFP	36.0	40.00	44.20	1	58.1	51.6	1
SMDJ40A	SMDJ40CA	PFR	DFR	40.0	44.40	49.10	1	64.5	46.5	1
SMDJ43A	SMDJ43CA	PFT	DFT	43.0	47.80	52.80	1	69.4	43.2	1
SMDJ45A	SMDJ45CA	PFV	DFV	45.0	50.00	55.30	1	72.7	41.3	1
SMDJ48A	SMDJ48CA	PFX	DFX	48.0	53.30	58.90	1	77.4	38.8	1
SMDJ51A	SMDJ51CA	PFZ	DFZ	51.0	56.70	62.70	1	82.4	36.4	1
SMDJ54A	SMDJ54CA	PGE	DGE	54.0	60.00	66.30	1	87.1	34.4	1
SMDJ58A	SMDJ58CA	PGG	DGG	58.0	64.40	71.20	1	93.6	32.1	1
SMDJ60A	SMDJ60CA	PGK	DGK	60.0	66.70	73.70	1	96.8	31.0	1
SMDJ64A	SMDJ64CA	PGM	DGM	64.0	71.10	78.60	1	103.0	29.1	1
SMDJ70A	SMDJ70CA	PGP	DGP	70.0	77.80	86.00	1	113.0	26.5	1
SMDJ75A	SMDJ75CA	PGR	DGR	75.0	83.30	92.10	1	121.0	24.8	1
SMDJ78A	SMDJ78CA	PGT	DGT	78.0	86.70	95.80	1	126.0	23.8	1
SMDJ85A	SMDJ85CA	PGV	DGV	85.0	94.4	104.0	1	137.0	21.9	1
SMDJ90A	SMDJ90CA	PGX	DGX	90.0	100.0	111.0	1	146.0	20.5	1
SMDJ100A	SMDJ100CA	PGZ	DGZ	100.0	111.0	123.0	1	162.0	18.5	1
SMDJ110A	SMDJ110CA	PHE	DHE	110.0	122.0	135.0	1	177.0	16.9	1
SMDJ120A	SMDJ120CA	PHG	DHG	120.0	133.0	147.0	1	193.0	15.5	1
SMDJ130A	SMDJ130CA	PHK	DHK	130.0	144.0	159.0	1	209.0	14.4	1
SMDJ150A	SMDJ150CA	PHM	DHM	150.0	167.0	185.0	1	243.0	12.3	1
SMDJ160A	SMDJ160CA	PHP	DHP	160.0	178.0	197.0	1	259.0	11.6	1
SMDJ170A	SMDJ170CA	PHR	DHR	170.0	189.0	209.0	1	275.0	10.9	1
SMDJ180A	SMDJ180CA	PHT	DHT	180.0	201.0	222.0	1	292.0	10.3	1
SMDJ190A	SMDJ190CA	PHV	DHV	190.0	209.0	243.0	1	308.0	9.7	1
SMDJ200A	SMDJ200CA	PHX	DHX	200.0	224.0	247.0	1	324.0	9.3	1
SMDJ210A	SMDJ210CA	PHZ	DHZ	210.0	231.0	268.0	1	340.0	8.8	1
SMDJ220A	SMDJ220CA	PIE	DIE	220.0	246.0	272.0	1	356.0	8.4	1
SMDJ250A	SMDJ250CA	PIG	DIG	250.0	279.0	309.0	1	405.0	7.4	1
SMDJ300A	SMDJ300CA	PIK	DIK	300.0	335.0	371.0	1	486.0	6.2	1
SMDJ350A	SMDJ350CA	PIM	DIM	350.0	391.0	432.0	1	567.0	5.3	1
SMDJ400A	SMDJ400CA	PIP	DIP	400.0	447.0	494.0	1	648.0	4.6	1
SMDJ440A	SMDJ440CA	PIR	DIR	440.0	492.0	543.0	1	713.0	4.2	1

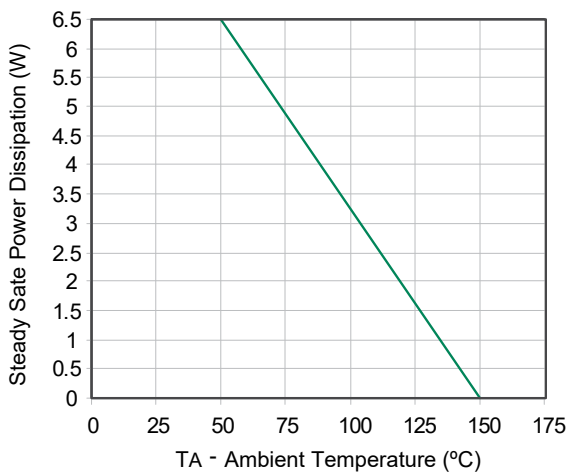
Typical Performance Characteristics ($T_A=25^\circ\text{C}$ unless otherwise Specified)



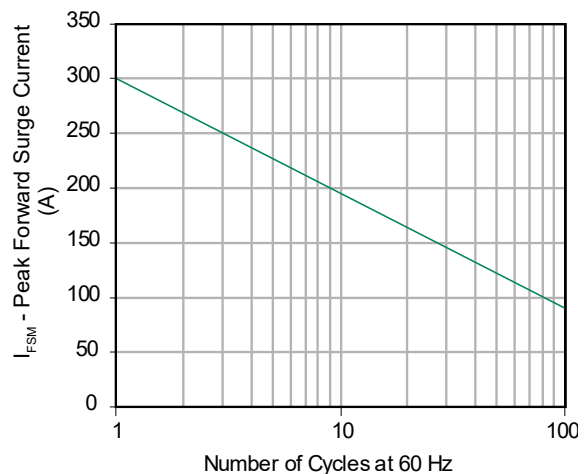
Pulse Derating Curve



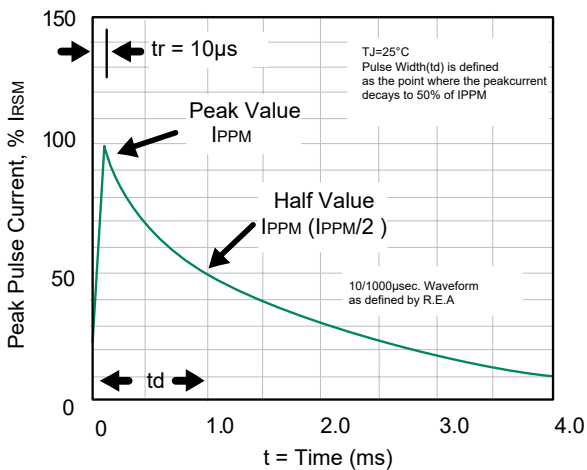
Typical Junction Capacitance



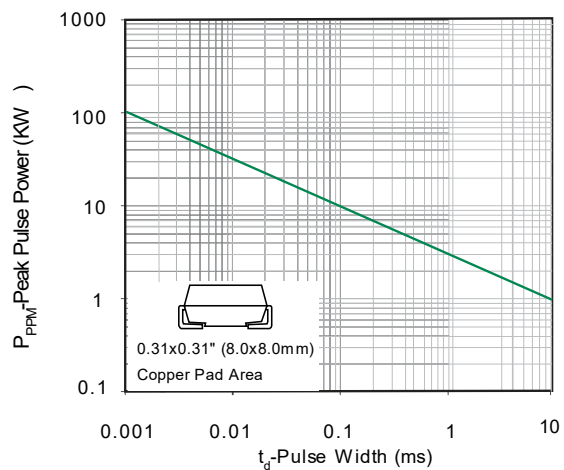
Steady State Power Dissipation Derating Curve



Peak Forward Surge Current

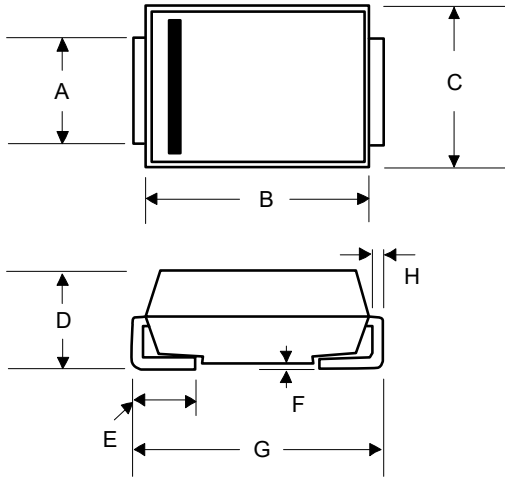


Pulse Waveform



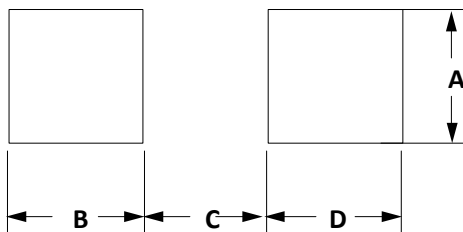
Peak Pulse Power Rating

DO-214AB Package Outline Drawing



SYM	DIMENSIONS			
	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	2.900	3.200	0.114	0.126
B	6.600	7.110	0.260	0.280
C	5.590	6.220	0.220	0.245
D	2.060	2.620	0.079	0.103
E	0.760	1.520	0.030	0.060
F	-	0.203	-	0.008
G	7.750	8.130	0.305	0.320
H	0.152	0.305	0.006	0.012

Suggested Land Pattern



SYM	DIMENSIONS	
	MILLIMETERS	INCHES
A	3.30	0.129
B	2.40	0.094
C	4.20	0.165
D	2.40	0.094

Contact Information

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