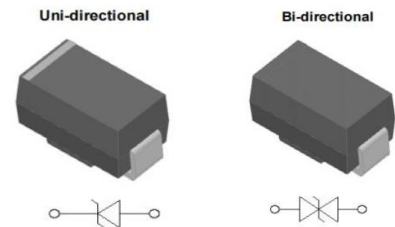


### Transient Voltage Suppressors

#### FEATURES :

- For surface mounted applications
- 1500W peak pulse power capability on 10/1000 $\mu$ s waveform
- Low incremental surge resistance, excellent clamping capability
- Very fast response time
- High temperature soldering guaranteed: 260 $^{\circ}$ C/10 seconds
- RoHS compliant.



DO-214AB

#### MECHANICAL DATA :

- Case : Molded plastic body
- Polarity : Polarity symbol marking on body



#### MAXIMUM RATINGS (Ratings at 25 $^{\circ}$ C ambient temperature unless otherwise specified)

Parameter	Symbol	Value	Unit
Peak Pulse Power Dissipation at $T_A=25^{\circ}\text{C}$ by 10x1000 $\mu$ s waveform	$P_{PPM}$	1500	W
Power Dissipation on infinite heat sink at $T_A=50^{\circ}\text{C}$	$P_{M(AV)}$	6.5	W
Peak Forward Surge Current, 8.3ms Single Half Sine Wave	$I_{FSM}$	200	A
Maximum Instantaneous Forward Voltage at 0.2A for Unidirectional	$V_F$	1.2	V
Operating Junction and Storage Temperature Range	$T_J, T_{STG}$	-55~+150	$^{\circ}\text{C}$
Typical Thermal Resistance Junction to Lead	$R_{Uj}$	15	$^{\circ}\text{C/W}$
Typical Thermal Resistance Junction to Ambient	$R_{UJA}$	75	$^{\circ}\text{C/W}$

Electrical Characteristics

P/N		Marking		VR (V)	VBR @ IT (V)		IT (mA)	IR@ VR (μA)		Ipp (A)	VC@ Ipp (V)
Uni	Bi	Uni	Bi		MIN	MAX		Uni	Bi		
SMCJ5.0A	SMCJ5.0CA	GDE	BDE	5	6.4	7	10	300	600	163	9.2
SMCJ6.0A	SMCJ6.0CA	GDG	BDG	6	6.67	7.37	10	300	600	145.7	10.3
SMCJ6.5A	SMCJ6.5CA	GDK	BDK	6.5	7.22	7.98	10	100	200	134	11.2
SMCJ7.0A	SMCJ7.0CA	GDM	BDM	7	7.78	8.6	10	100	150	125	12
SMCJ7.5A	SMCJ7.5CA	GDP	BDP	7.5	8.33	9.21	1	40	80	116.3	12.9
SMCJ8.0A	SMCJ8.0CA	GDR	BDR	8	8.89	9.83	1	30	30	110.3	13.6
SMCJ8.5A	SMCJ8.5CA	GDT	BDT	8.5	9.44	10.4	1	5	15	104.2	14.4
SMCJ9.0A	SMCJ9.0CA	GDV	BDV	9	10	11.1	1	2.5	4	97.4	15.4
SMCJ10A	SMCJ10CA	GDX	BDX	10	11.1	12.3	1	1	1	88.3	17
SMCJ11A	SMCJ11CA	GDZ	BDZ	11	12.2	13.5	1	1	1	82.5	18.2
SMCJ12A	SMCJ12CA	GEE	BEE	12	13.3	14.7	1	1	1	75.4	19.9
SMCJ13A	SMCJ13CA	GEG	BEG	13	14.4	15.9	1	1	1	69.8	21.5
SMCJ14A	SMCJ14CA	GEK	BEK	14	15.6	17.2	1	1	1	64.7	23.2
SMCJ15A	SMCJ15CA	GEM	BEM	15	16.7	18.5	1	1	1	61.5	24.4
SMCJ16A	SMCJ16CA	GEP	BEP	16	17.8	19.7	1	1	1	57.7	26
SMCJ17A	SMCJ17CA	GER	BER	17	18.9	20.9	1	1	1	54.4	27.6
SMCJ18A	SMCJ18CA	GET	BET	18	20	22.1	1	1	1	51.4	29.2
SMCJ20A	SMCJ20CA	GEV	BEV	20	22.2	24.5	1	1	1	46.3	32.4
SMCJ22A	SMCJ22CA	GEX	BEX	22	24.4	26.9	1	1	1	42.3	35.5
SMCJ24A	SMCJ24CA	GEZ	BEZ	24	26.7	29.5	1	1	1	38.6	38.9
SMCJ26A	SMCJ26CA	GFE	BFE	26	28.9	31.9	1	1	1	35.7	42.1
SMCJ28A	SMCJ28CA	GFG	BFG	28	31.1	34.4	1	1	1	33.1	45.4
SMCJ30A	SMCJ30CA	GFK	BFK	30	33.3	36.8	1	1	1	31	48.4
SMCJ33A	SMCJ33CA	GFM	BFM	33	36.7	40.6	1	1	1	28.2	53.3
SMCJ36A	SMCJ36CA	GFP	BFP	36	40	44.2	1	1	1	25.9	58.1
SMCJ40A	SMCJ40CA	GFR	BFR	40	44.4	49.1	1	1	1	23.3	64.5
SMCJ43A	SMCJ43CA	GFT	BFT	43	47.8	52.8	1	1	1	21.7	69.4
SMCJ45A	SMCJ45CA	GFV	BFV	45	50	55.3	1	1	1	20.6	72.7
SMCJ48A	SMCJ48CA	GFX	BFX	48	53.3	58.9	1	1	1	19.4	77.4
SMCJ51A	SMCJ51CA	GFZ	BFZ	51	56.7	62.7	1	1	1	18.2	82.4
SMCJ54A	SMCJ54CA	GGE	BGE	54	60	66.3	1	1	1	17.3	87.1
SMCJ58A	SMCJ58CA	GGG	BGG	58	64.4	71.2	1	1	1	16.1	93.6
SMCJ60A	SMCJ60CA	GGK	BGK	60	66.7	73.7	1	1	1	15.5	96.8
SMCJ64A	SMCJ64CA	GGM	BGM	64	71.1	78.6	1	1	1	14.6	103
SMCJ70A	SMCJ70CA	GGP	BGP	70	77.8	86	1	1	1	13.3	113
SMCJ75A	SMCJ75CA	GGR	BGR	75	83.3	92.1	1	1	1	12.4	121
SMCJ78A	SMCJ78CA	GGT	BGT	78	86.7	95.8	1	1	1	11.9	126
SMCJ85A	SMCJ85CA	GGV	BGV	85	94.4	104	1	1	1	11	137
SMCJ90A	SMCJ90CA	GGX	BGX	90	100	111	1	1	1	10.3	146
SMCJ100A	SMCJ100CA	GGZ	BGZ	100	111	123	1	1	1	9.3	162
SMCJ110A	SMCJ110CA	GHE	BHE	110	122	135	1	1	1	8.5	177
SMCJ120A	SMCJ120CA	GHG	BHG	120	133	147	1	1	1	7.8	193
SMCJ130A	SMCJ130CA	GHK	BHK	130	144	159	1	1	1	7.2	209
SMCJ150A	SMCJ150CA	GHM	BHM	150	167	185	1	1	1	6.2	243
SMCJ160A	SMCJ160CA	GHP	BHP	160	178	197	1	1	1	5.8	259
SMCJ170A	SMCJ170CA	GHR	BHR	170	189	209	1	1	1	5.5	275
SMCJ180A	SMCJ180CA	GHT	BHT	180	201	222	1	1	1	5.1	292
SMCJ200A	SMCJ200CA	GHV	BHV	200	224	247	1	1	1	4.6	324
SMCJ220A	SMCJ220CA	GHX	BHX	220	246	272	1	1	1	4.2	356
SMCJ250A	SMCJ250CA	GHZ	BHZ	250	279	309	1	1	1	3.7	405

SMCJ300A	SMCJ300CA	GJE	BJE	300	335	371	1	1	1	3.1	486
SMCJ350A	SMCJ350CA	GJG	BJG	350	391	432	1	1	1	2.6	567
SMCJ400A	SMCJ400CA	GJK	BJK	400	447	494	1	1	1	2.3	648
SMCJ440A	SMCJ440CA	GJM	BJM	440	492	543	1	1	1	2.1	713

Ratings and Characteristic Curves ( $T_A=25^\circ\text{C}$  unless otherwise noted)

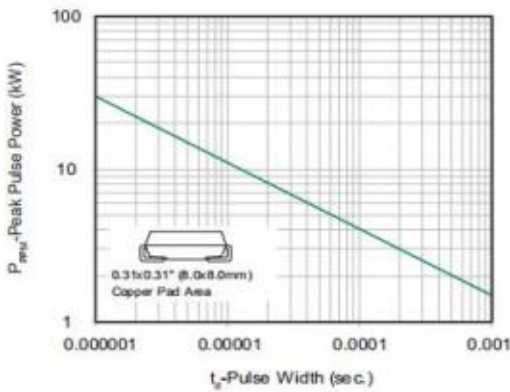


Figure 1. Peak Pulse Power Rating Curve

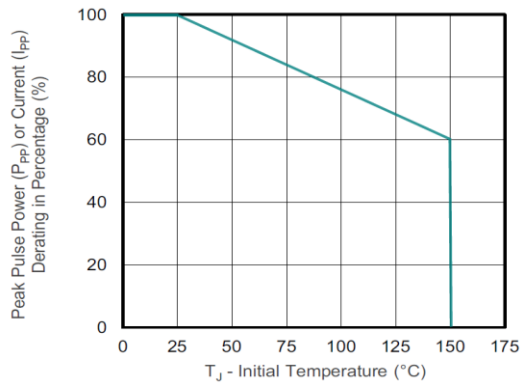


Figure 2. Pulse Derating Curve

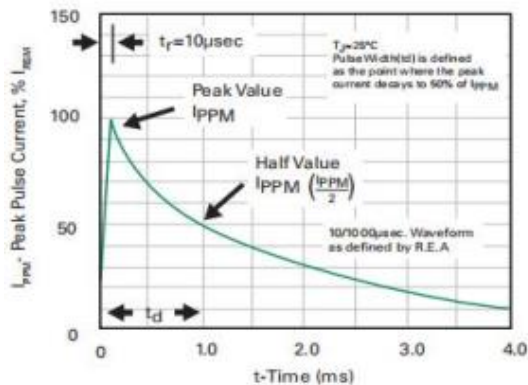


Figure 3. Pulse Waveform

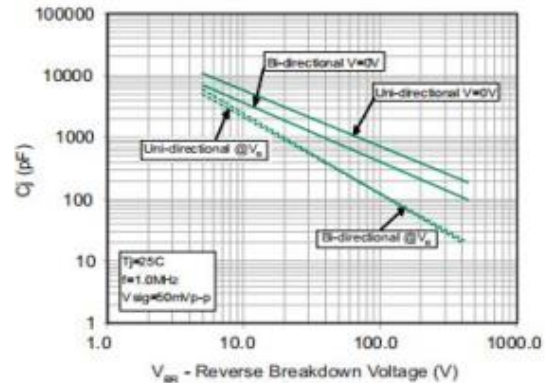


Figure 4. Typical Junction Capacitance

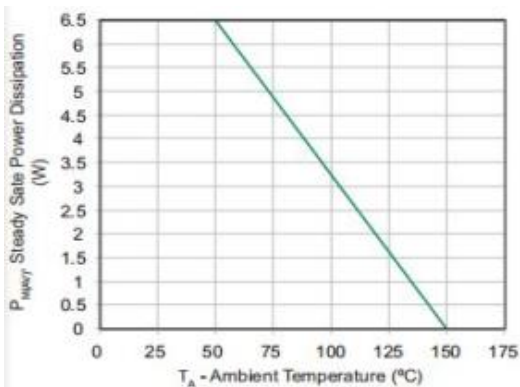


Figure 5. Steady State Power Dissipation Derating Curve

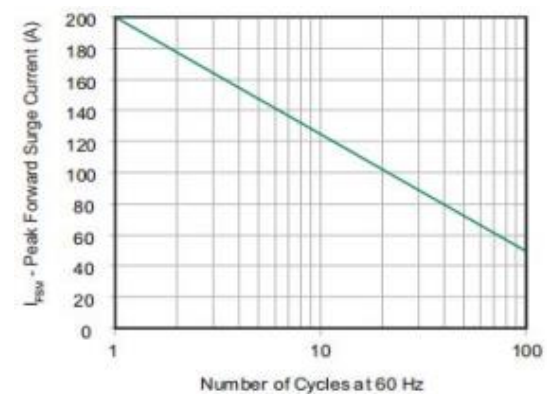
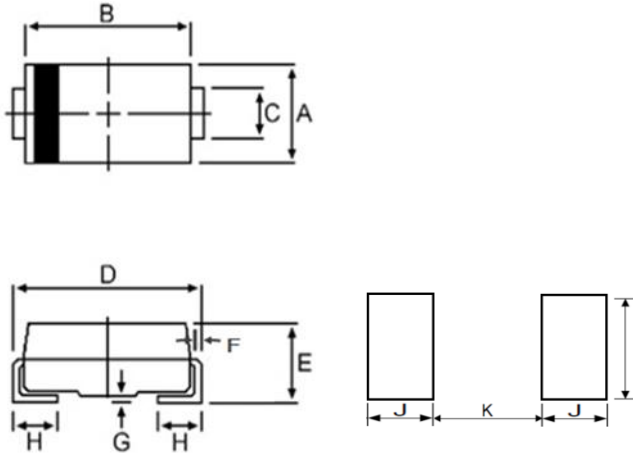


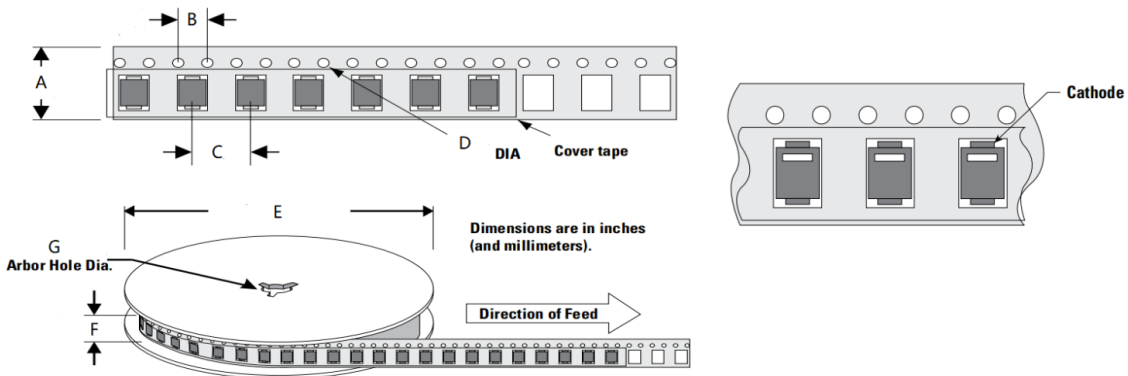
Figure 6. Maximum Non-Repetitive Forward Surge Current Uni-Directional Only

• DO-214AB Package outlines : Dimensions in millimeters



Dimensions	Millimeters	
	Min	Max
A	5.59	6.22
B	6.50	7.11
C	2.80	3.20
D	7.50	8.20
E	2.00	2.62
F	0.152	0.305
G	0.00	0.203
H	0.75	1.55
I	3.20	
J	1.52	
K		4.80

• Tape & Reel Information



Dimensions	Millimeters	
	Min	Max
A	16.00	16.10
B	3.90	4.10
C	7.90	8.10
D	1.40	1.60
E	329.0	331.0
F	16.50	18.00
G	13.00	14.50
A0	5.95	6.15
B0	8.21	8.41
K0	2.44	2.64
Aθ	--	8°
Bθ	--	5°

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