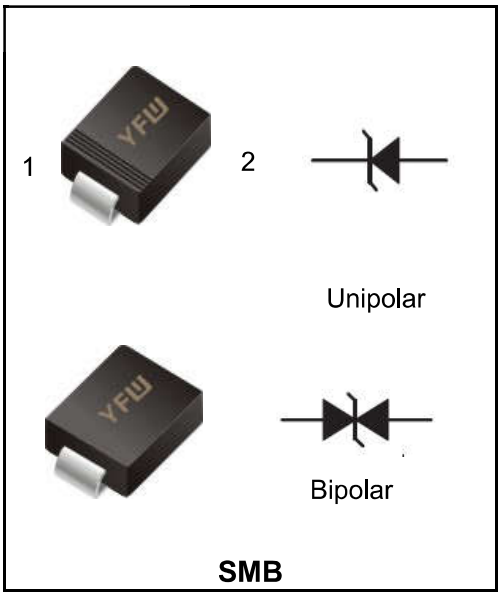
Transient Voltage Suppressor power 1000 watts
Stand-Off Voltage: 5.0V~480V



Features

- Excellent clamping capability
- Low leakage current
- High surge capability
- Glass passivated chip
- Epoxy resin package
- Built-in strain relief
- Will not fatigue
- RoHS Compliant
- Fast response time:
- typically less than 1.0ps from 0 Volts to VBR min

FEATURES

- Telecom
- Computer
- Industrial electronic
- Consumer electronic

MECHANICAL DATA

- Package: DO-214AA/SMB
- Lead Finish: Matte Tin
- Case Material: Epoxy Molding Compound.
- UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020

Limiting Values(TA = 25 °C, unless otherwise specified)

Parameter	Symbol	Value	Unit
Peak Pulse Power Dissipation (Note1)(Note2)	P_{PPM}	1000	W
Steady State Power Dissipation(Note3)	P_D	5	W
Peak Forward Surge Current(Note4)	I_{FSM}	150	A
Maximum Instantaneous Forward Voltage at 75A(Note5)	V_{FM}	3.5/5	V
Typical Thermal Resistance Junction to Lead	$R_{\theta JL}$	20	°C/W
Typical Thermal Resistance Junction to Ambient	$R_{\theta JA}$	100	°C/W
Operating Temperature Range	$T_{J,}$	-55 to +150	°C
Storage Temperature Range	T_{STG}	-55 to +150	°C

Notes1: Non-repetitive current pulse , 10/1000us Waveform.
Notes2: Mounted on copper pad area of 5×5mm to each terminal.
Notes3: Infinite HeatSink at T_L=50°C
Notes4: Measured on 8.3ms single half sine wave or equivalent square wave, duty cycle=4 perminute maximum.
Notes5: For UnidirectionalOnly, V_{FM}<3.5V for V_{BR} ≤200V and V_{FM}<5.0V for V_{BR}≥201V.

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

Part Number (Uni)	Part Number (Bi)	Marking Code		Reverse Stand off Voltage V_R(V)	Breakdown Voltage V_{BR}@ I_T(V)		Test Current I_T(mA)	Maximum Clamping Voltage Vc@ Ipp(V)	Maximum Peak Pulse Current Ipp (A)	Maximun Reverse Leakage I_R@ V_R(μA)
		Uni	Bi		Min	Max				
1.0SMBJ5.0A	1.0SMBJ5.0CA	TKE	TAE	5	6.4	7	10	9.2	108.8	800
1.0SMBJ6.0A	1.0SMBJ6.0CA	TKG	TAG	6	6.67	7.37	10	10.3	97.2	800
1.0SMBJ6.5A	1.0SMBJ6.5CA	TKK	TAK	6.5	7.22	7.98	10	11.2	89.3	500
1.0SMBJ7.0A	1.0SMBJ7.0CA	TKM	TAM	7	7.78	8.6	10	12	83.3	200
1.0SMBJ7.5A	1.0SMBJ7.5CA	TKP	TAP	7.5	8.33	9.21	1	12.9	77.7	100
1.0SMBJ8.0A	1.0SMBJ8.0CA	TKR	TAR	8	8.89	9.83	1	13.6	73.7	50
1.0SMBJ8.5A	1.0SMBJ8.5CA	TKT	TAT	8.5	9.44	10.4	1	14.4	69.5	20
1.0SMBJ9.0A	1.0SMBJ9.0CA	TKV	TAV	9	10	11.1	1	15.4	65	10
1.0SMBJ10A	1.0SMBJ10CA	TKX	TAX	10	11.1	12.3	1	17	58.8	5
1.0SMBJ11A	1.0SMBJ11CA	TKZ	TAZ	11	12.2	13.5	1	18.2	55	1
1.0SMBJ12A	1.0SMBJ12CA	TLE	TBE	12	13.3	14.7	1	19.9	50.3	1
1.0SMBJ13A	1.0SMBJ13CA	TLG	TBG	13	14.4	15.9	1	21.5	46.7	1
1.0SMBJ14A	1.0SMBJ14CA	TLK	TBK	14	15.6	17.2	1	23.2	43.2	1
1.0SMBJ15A	1.0SMBJ15CA	TLM	TBM	15	16.7	18.5	1	24.4	41	1
1.0SMBJ16A	1.0SMBJ16CA	TLP	TBP	16	17.8	19.7	1	26	38.5	1
1.0SMBJ17A	1.0SMBJ17CA	TLR	TBR	17	18.9	20.9	1	27.6	36.3	1
1.0SMBJ18A	1.0SMBJ18CA	TLT	TBT	18	20	22.1	1	29.2	34.3	1
1.0SMBJ20A	1.0SMBJ20CA	TLV	TBV	20	22.2	24.5	1	32.4	31	1
1.0SMBJ22A	1.0SMBJ22CA	TLX	TBX	22	24.4	26.9	1	35.5	28.17	1
1.0SMBJ24A	1.0SMBJ24CA	TLZ	TBZ	24	26.7	29.5	1	38.9	25.71	1
1.0SMBJ26A	1.0SMBJ26CA	TME	TCE	26	28.9	31.9	1	42.1	23.75	1
1.0SMBJ28A	1.0SMBJ28CA	TMG	TCG	28	31.1	34.4	1	45.4	22.03	1
1.0SMBJ30A	1.0SMBJ30CA	TMK	TCK	30	33.3	36.8	1	48.4	20.66	1
1.0SMBJ33A	1.0SMBJ33CA	TMM	TCM	33	36.7	40.6	1	53.3	18.76	1
1.0SMBJ36A	1.0SMBJ36CA	TMP	TCP	36	40	44.2	1	58.1	17.21	1
1.0SMBJ40A	1.0SMBJ40CA	TMR	TCR	40	44.4	49.1	1	64.5	15.5	1
1.0SMBJ43A	1.0SMBJ43CA	TMT	TCT	43	47.8	52.8	1	69.4	14.41	1
1.0SMBJ45A	1.0SMBJ45CA	TMV	TCV	45	50	55.3	1	72.7	13.76	1
1.0SMBJ48A	1.0SMBJ48CA	TMX	TCX	48	53.3	58.9	1	77.4	12.92	1
1.0SMBJ51A	1.0SMBJ51CA	TMZ	TCZ	51	56.7	62.7	1	82.4	12.14	1
1.0SMBJ54A	1.0SMBJ54CA	TNE	TDE	54	60	66.3	1	87.1	11.48	1
1.0SMBJ58A	1.0SMBJ58CA	TNG	TDG	58	64.4	71.2	1	93.6	10.68	1
1.0SMBJ60A	1.0SMBJ60CA	TNK	TDK	60	66.7	73.7	1	96.8	10.33	1
1.0SMBJ64A	1.0SMBJ64CA	TNM	TDM	64	71.1	78.6	1	103	9.71	1
1.0SMBJ70A	1.0SMBJ70CA	TNP	TDP	70	77.8	86	1	113	8.85	1
1.0SMBJ75A	1.0SMBJ75CA	TNR	TDR	75	83.3	92.1	1	121	8.26	1
1.0SMBJ78A	1.0SMBJ78CA	TNT	TDT	78	86.7	95.8	1	126	7.94	1
1.0SMBJ85A	1.0SMBJ85CA	TNV	TDV	85	94.4	104	1	137	7.3	1
1.0SMBJ90A	1.0SMBJ90CA	TNX	TDX	90	100	111	1	146	6.85	1
1.0SMBJ100A	1.0SMBJ100CA	TNZ	TDZ	100	111	123	1	162	6.17	1
1.0SMBJ110A	1.0SMBJ110CA	TPE	TEE	110	122	135	1	177	5.65	1
1.0SMBJ120A	1.0SMBJ120CA	TPG	TEG	120	133	147	1	193	5.18	1
1.0SMBJ130A	1.0SMBJ130CA	TPK	TEK	130	144	159	1	209	4.83	1
1.0SMBJ150A	1.0SMBJ150CA	TPM	TEM	150	167	185	1	243	4.17	1
1.0SMBJ160A	1.0SMBJ160CA	TPP	TEP	160	178	197	1	259	3.83	1
1.0SMBJ170A	1.0SMBJ170CA	TPR	TER	170	189	209	1	275	3.67	1
1.0SMBJ180A	1.0SMBJ180CA	TPT	TET	180	201	222	1	292	3.5	1
1.0SMBJ190A	1.0SMBJ190CA	TPA	TEC	190	209	243	1	308	3.33	1
1.0SMBJ200A	1.0SMBJ200CA	TPV	TEV	200	224	247	1	324	3.17	1
1.0SMBJ210A	1.0SMBJ210CA	TPB	TED	210	231	268	1	340	3	1
1.0SMBJ220A	1.0SMBJ220cA	TPX	TEX	220	246	272	1	356	2.83	1
1.0SMBJ250A	1.0SMBJ250CA	TPZ	TEZ	250	279	309	1	405	2.5	1
1.0SMBJ300A	1.0SMBJ300CA	TQE	TFE	300	335	371	1	486	2.17	1
1.0SMBJ350A	1.0SMBJ350CA	TQG	TFG	350	391	432	1	567	1.83	1
1.0SMBJ400A	1.0SMBJ400CA	TQK	TFK	400	447	494	1	648	1.5	1
1.0SMBJ440A	1.0SMBJ440CA	TQM	TFM	440	492	543	1	713	1.5	1
1.0SMBJ480A	1.0SMBJ480CA	TQP	TFP	480	536	593	1	750	1.33	1

Rating And Characteristic Curves (T_A=25 °C unless otherwise noted)

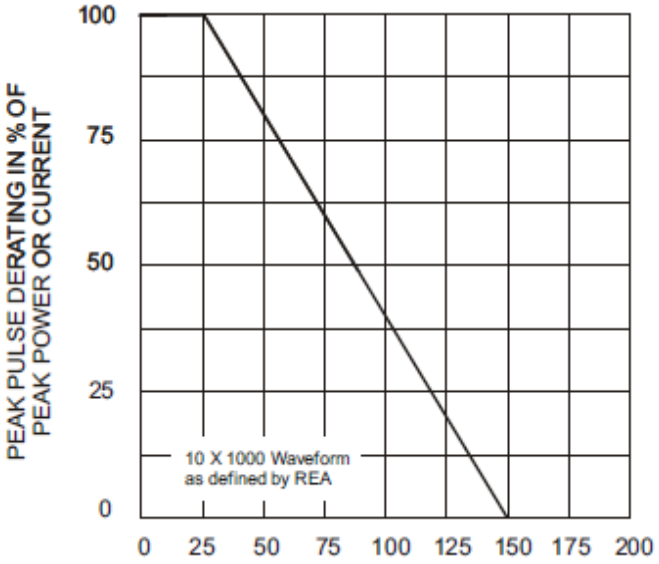


Fig. 1 - Pulse Derating Curve

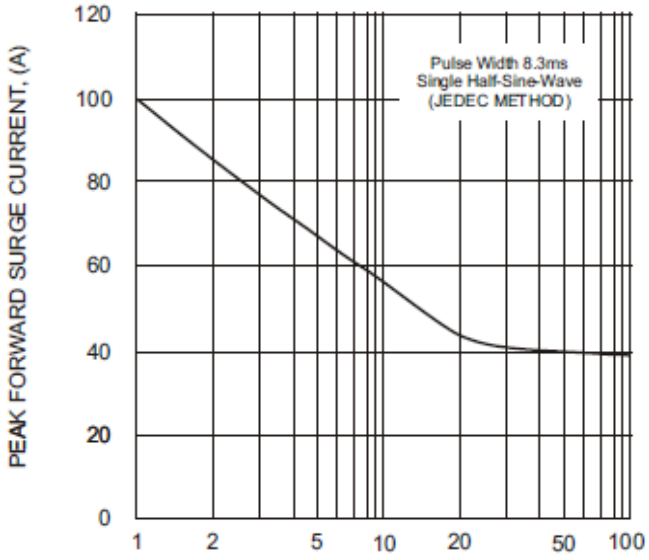


Fig. 2 - Maximum Non-Repetitive Surge Current

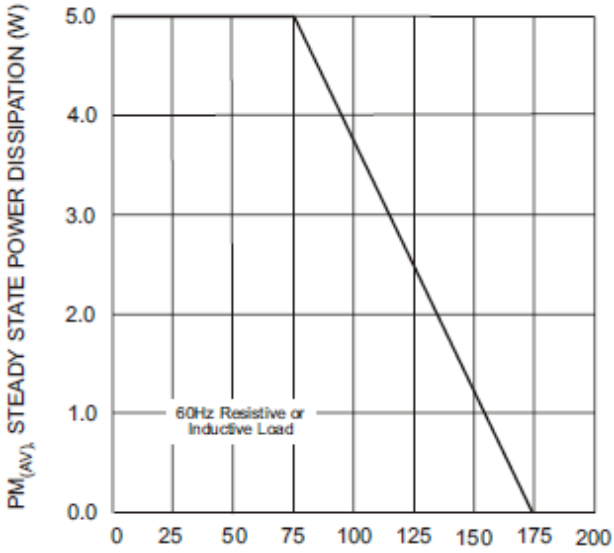


Fig. 3 - Steady State Power Derating Curve

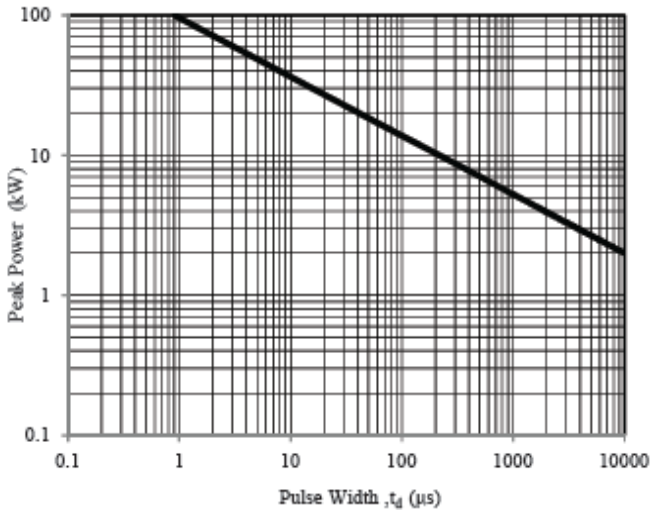


Fig. 4 - Peak Pulse Power Rating Curve

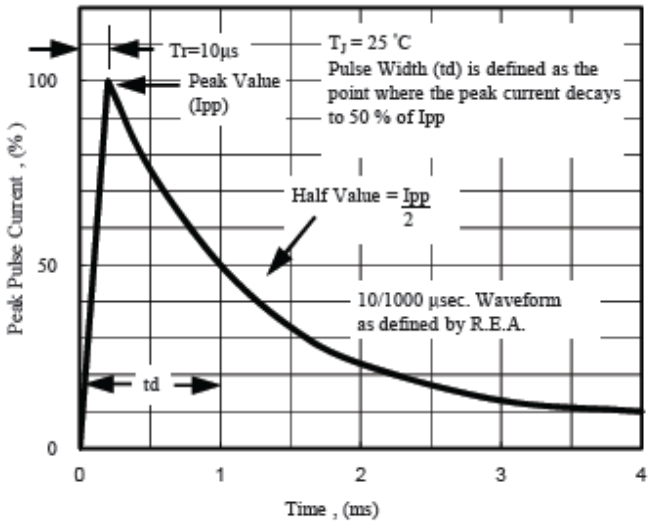


Fig. 5 - Pulse Waveform

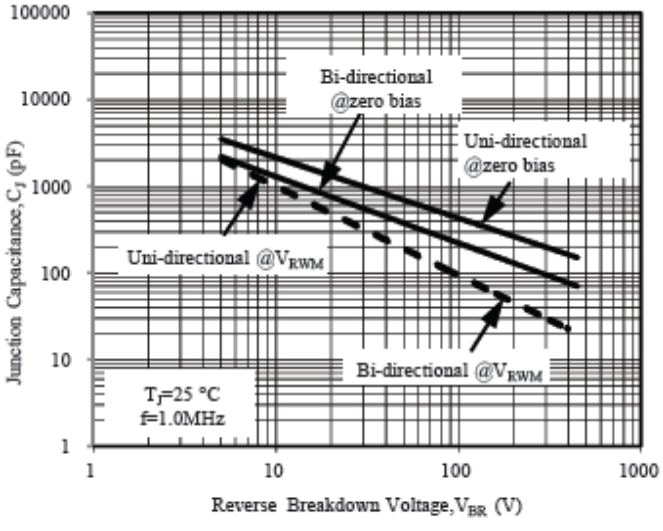


Fig. 6 - Typical Junction Capacitance

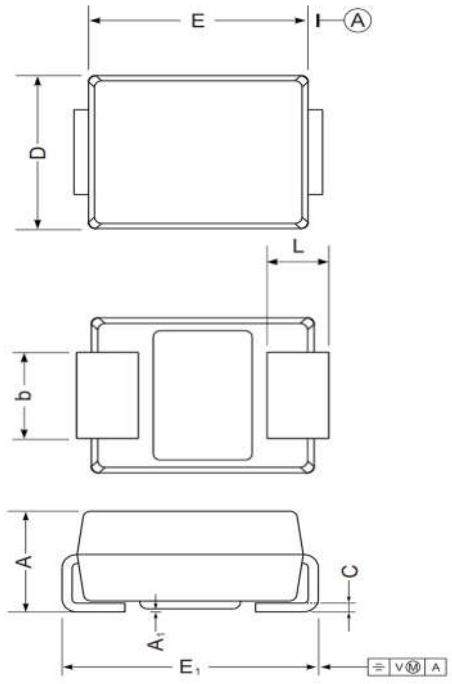
Marking Diagram

Ordering information

Package	Packing Description	Packing Quantity
DO-214AA SMB	Tape/Reel,13"reel	3000PCS/Reel 30000PCS/Carton

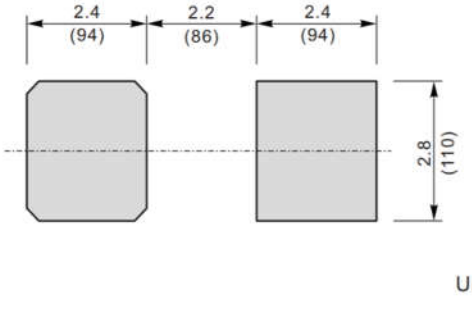
Package Dimensions

DO-214AA SMB



Dim.	Millimeter(mm)		mil	
	Min.	Max.	Min.	Max.
A	2.13	2.44	84	96
E	4.06	4.70	160	185
D	3.3	3.94	130	155
E_1	5.08	5.59	200	220
A1	0.05	0.20	2.0	7.9
L	0.8	1.5	32	59
C	0.152	0.305	6	12
b	1.9	2.2	75	87

The recommended mounting pad size



Unit : mm (mil)

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