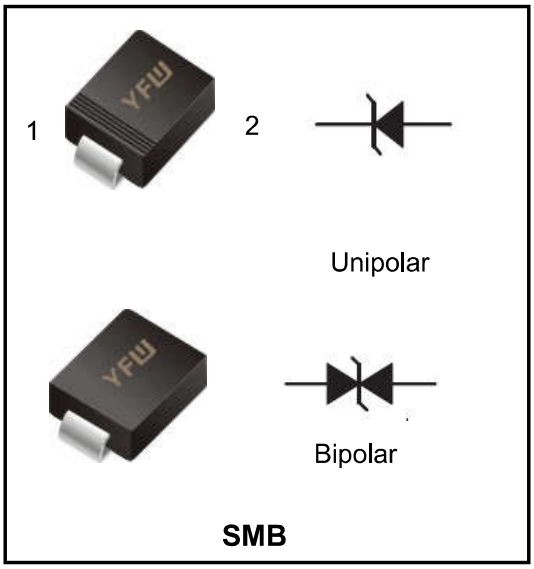
3000W Surface Mount Transient Voltage Suppressors

Features

- Optimzed for LAN protection applications
- Ideal for ESD protection of data lines in accordance with IEC 1000-4-2(IEC801-2)
- Ideal for EFT protection of data lines in accordance with IEC 1000-4-4(IEC801-2)
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Glass passivated junction
- 3000w peak pulse power capability
- Excellent clamping capability
- Low incremental surge resistance
- Fast response time:typically less than 1.0ps from 0v toVBR min
- High temperature soldering guaranteed: 260°C/10S at terminals



Mechanical Data

- Case : Molded plastic body
- Terminals : Solder plated, solderable per MIL-STD-750,Method 2026
- Polarity : Polarity symbol marking on body
- Mounting Position : Any
- Weight : 0.0035 ounce, 0.098 grams

Maximum Ratings And Electrical Characteristics

Ratings at 25 C ambient temperature unless otherwise specified.

Parameter	Symbol	value	Unit
Peak power dissipation with a 10/1000 us waveform(1)	P_{PP}	3000	W
Peak pulse current wih a 10/1000 us waveform(1)	I_{PP}	See Next Table	A
Power dissipation on infinite heatsink at T_L = 75 °C	P_D	6.5	W
Peak forward surge current, 8.3 ms single half sinewave unidirectional only(2)	I_{FSM}	200	A
Maximum instantaneous forward voltage at 100 A for unidirectional only(3)	V_F	7.0/13.0	V
Operating Temperature	T_J	-55 to+150	℃
Storage Temperature	Tstg	-55 to+150	℃

Note:

1)Non-repetitive current pulse per Fig.5 and derated above TA= 25 °C per Fig.1;

2)Measured on 8.3 ms single half sine-wave or equivalent square wave, duty cycle = 4 pulses per minute maximum;

3)VF<7.0V for devices of VBR<100V and VF<13.0V for devices of VBR>101V。

Electrical Characteristics

Part Number		Device Marking Code		Reverse Stand-off Voltage	Breakdown Voltage V_{BR} @ I_T		Test Current	Max. Clamping Voltage @ I_{PP}	Max. Peak Pulse Current	Max. Reverse Leakage @ V_{RWM}
UNI-POLAR	BI-POLAR	UNI	BI	V_{RWM}(V)	Min.(V)	Max.(V)	I_T(mA)	$V_{C\ MAX.}$(V)	I_{pp}(A)	I_R(uA)
3.0SMBJ11A	3.0SMBJ11CA	PDZ	DDZ	11.0	12.20	13.50	1	18.2	164.8	800
3.0SMBJ12A	3.0SMBJ12CA	PEE	DEE	12.0	13.30	14.70	1	19.9	150.8	800
3.0SMBJ13A	3.0SMBJ13CA	PEG	DEG	13.0	14.40	15.90	1	21.5	139.5	500
3.0SMBJ14A	3.0SMBJ14CA	PEK	DEK	14.0	15.60	17.20	1	23.2	129.3	200
3.0SMBJ15A	3.0SMBJ15CA	PEM	DEM	15.0	16.70	18.50	1	24.4	123.0	200
3.0SMBJ16A	3.0SMBJ16CA	PEP	DEP	16.0	17.80	19.70	1	26.0	115.4	100
3.0SMBJ17A	3.0SMBJ17CA	PER	DER	17.0	18.90	20.90	1	27.6	108.7	50
3.0SMBJ18A	3.0SMBJ18CA	PET	DET	18.0	20.00	22.10	1	29.2	102.7	20
3.0SMBJ20A	3.0SMBJ20CA	PEV	DEV	20.0	22.20	24.50	1	32.4	92.6	10
3.0SMBJ22A	3.0SMBJ22CA	PEX	DEX	22.0	24.40	26.90	1	35.5	84.5	5
3.0SMBJ24A	3.0SMBJ24CA	PEZ	DEZ	24.0	26.70	29.50	1	38.9	77.1	5
3.0SMBJ26A	3.0SMBJ26CA	PFE	DFE	26.0	28.90	31.90	1	42.1	71.3	5
3.0SMBJ28A	3.0SMBJ28CA	PFG	DFG	28.0	31.10	34.40	1	45.4	66.1	5
3.0SMBJ30A	3.0SMBJ30CA	PFK	DFK	30.0	33.50	36.80	1	48.4	62.0	5
3.0SMBJ33A	3.0SMBJ33CA	PFM	DFM	33.0	36.70	40.60	1	53.3	56.3	5
3.0SMBJ36A	3.0SMBJ36CA	PFP	DFP	36.0	40.00	44.20	1	58.1	51.6	5
3.0SMBJ40A	3.0SMBJ40CA	PFR	DFR	40.0	44.40	49.10	1	64.5	46.5	5
3.0SMBJ43A	3.0SMBJ43CA	PFT	DFT	43.0	47.80	52.80	1	69.4	43.2	5
3.0SMBJ45A	3.0SMBJ45CA	PFV	DFV	45.0	50.00	55.30	1	72.7	41.3	5
3.0SMBJ48A	3.0SMBJ48CA	PFX	DFX	48.0	53.30	58.90	1	77.4	38.8	5
3.0SMBJ51A	3.0SMBJ51CA	PFZ	DFZ	51.0	56.70	62.70	1	82.4	36.4	5
3.0SMBJ54A	3.0SMBJ54CA	PGE	DGE	54.0	60.00	66.30	1	87.1	34.4	5
3.0SMBJ58A	3.0SMBJ58CA	PGG	DGG	58.0	64.40	71.20	1	93.6	32.1	5
3.0SMBJ60A	3.0SMBJ60CA	PGK	DGK	60.0	66.70	73.70	1	96.8	31.0	5
3.0SMBJ64A	3.0SMBJ64CA	PGM	DGM	64.0	71.10	78.60	1	103.0	29.1	5
3.0SMBJ70A	3.0SMBJ70CA	PGP	DGP	70.0	77.80	86.00	1	113.0	26.5	5
3.0SMBJ75A	3.0SMBJ75CA	PGR	DGR	75.0	83.30	92.10	1	121.0	24.8	5
3.0SMBJ78A	3.0SMBJ78CA	PGT	DGT	78.0	86.70	95.80	1	126.0	23.8	5
3.0SMBJ85A	3.0SMBJ85CA	PGV	DGV	85.0	94.4	104.0	1	137.0	21.9	5
3.0SMBJ90A	3.0SMBJ90CA	PGX	DGX	90.0	100.0	111.0	1	146.0	20.5	5
3.0SMBJ100A	3.0SMBJ100CA	PGZ	DGZ	100.0	111.0	123.0	1	162.0	18.5	5
3.0SMBJ110A	3.0SMBJ110CA	PHE	DHE	110.0	122.0	135.0	1	177.0	16.9	5
3.0SMBJ120A	3.0SMBJ120CA	PHG	DHG	120.0	133.0	147.0	1	193.0	15.5	5
3.0SMBJ130A	3.0SMBJ130CA	PHK	DHK	130.0	144.0	159.0	1	209.0	14.4	5
3.0SMBJ150A	3.0SMBJ150CA	PHM	DHM	150.0	167.0	185.0	1	243.0	12.3	5

Ratings And Characteristic Curves

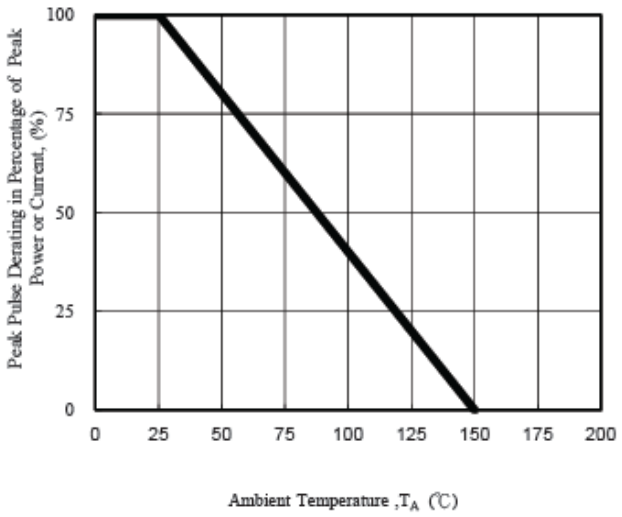


Fig. 1 - Pulse Derating Curve

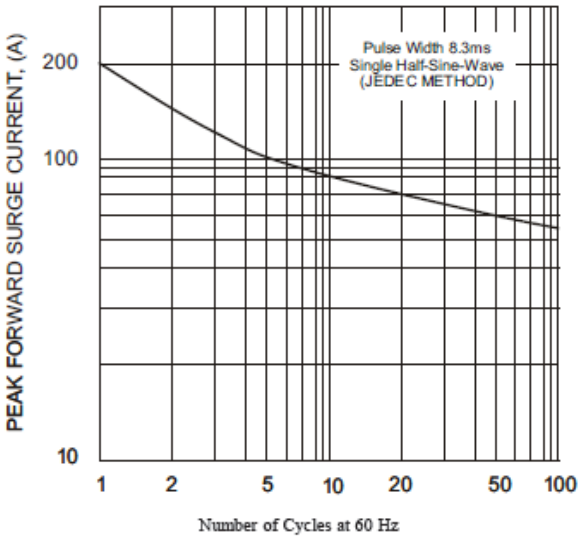


Fig. 2 - Maximum Non-Repetitive Surge Current

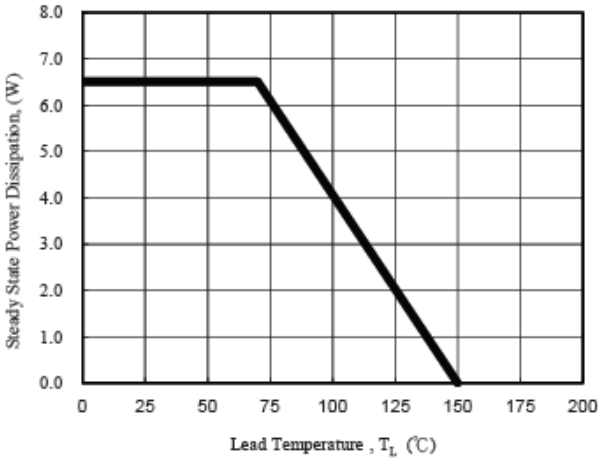


Fig. 3 - Steady State Power Derating Curve

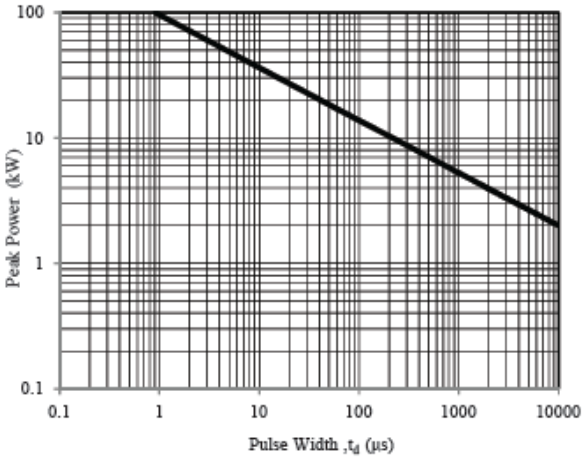


Fig. 4 - Peak Pulse Power Rating Curve

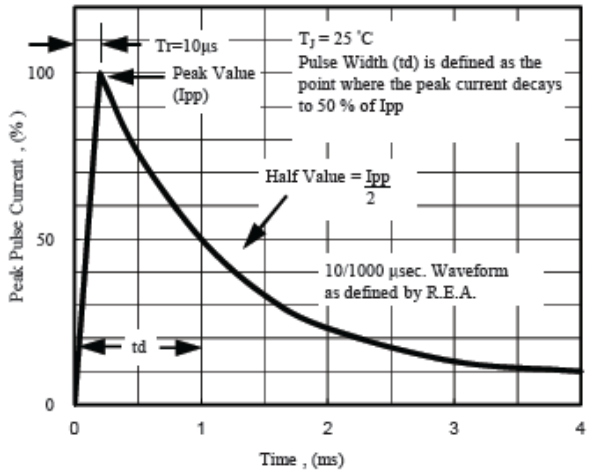


Fig. 5 - Pulse Waveform

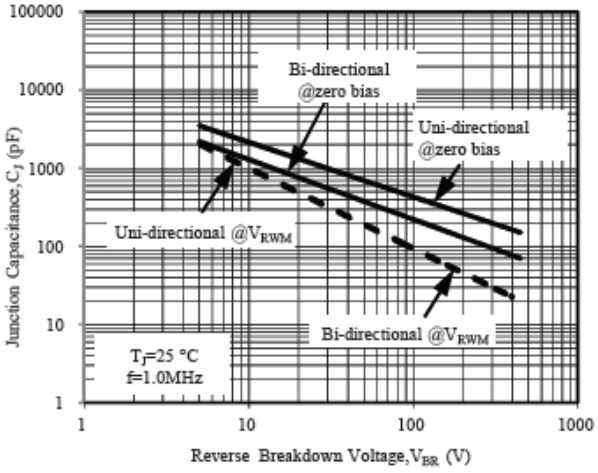


Fig. 6 - Typical Junction Capacitance

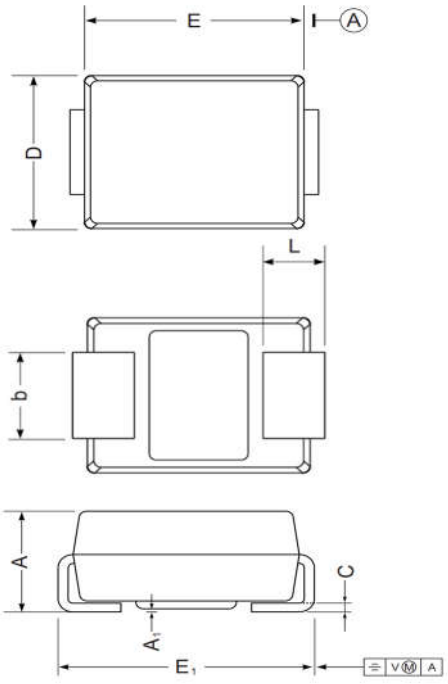
Marking Diagram

Ordering information

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

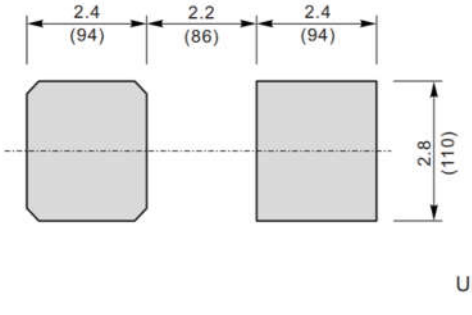
Package Dimensions

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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