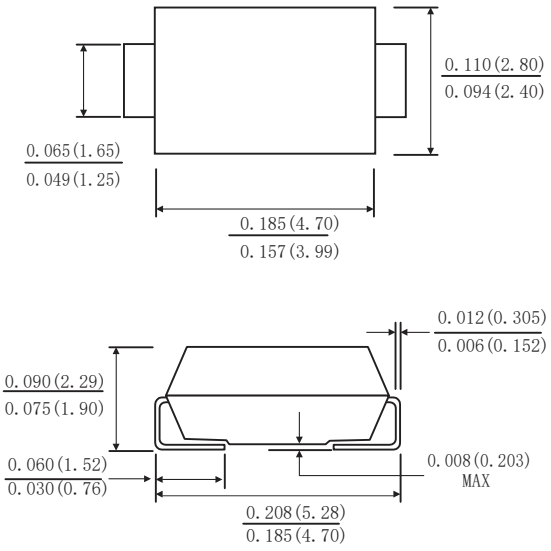
TRANSIENT VOLTAGE SUPPRESSOR
PEAK PULSE POWER-400 Watts

Features :

- 400 Watts Pulse capability
- Excellent clamping capability
- Low incremental surge resistance
- Fast response time
- High temperature soldering guaranteed: 260°C/10 seconds at terminals
- Component inaccordance to RoHS 2011/65/EU

SMA(DO-214AC)



Dimensions in inches and (millimeters)

Mechanical Data:

- Case: JEDEC SMA(DO-214AC) molded plastic body
- Terminals: Solder Plated
- Polarity: By cathode band denotes uni-directional device, none cathode band denotes bi-directional device.

DEVICES FOR BIDIRECTIONAL APPLICATIONS

- 1. For bi-directional use C suffix for Types .
- 2. Electrical characteristics apply in both directions.

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(Rating at 25°C ambient temperature unless otherwise specified)

	Symbols	Valuse	Units
Peak Pulse Power Dissipation at on 10/1000μs Waveform (Note 1. 2)	P_{PK}	400	Watts
Peak forward surge current, 8. 3ms single half sine-wave superimposed on rated load (JEDEC method) (Note 2, 3)	I_{FSM}	100	Amps
Operating jumction and storage temperature range	T_J, T_{STG}	-55 to 150	°C

Note: 1.Non repetitive current pulse and derated above T_A=25°C

2.Mounted on copper pads area of 0. 2X0. 2"(5X5mm)

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

RATINGS AND CHARACTERISTIC CURVES（SMAJ SERIES）

Part number		Marking		Reverse Standoff Voltage VRWM (Volts)	Breakdown Voltage VBR （Volts）		Test Current (mA)	Maximum Clamping Voltage VC@Ipp (Volts)	Maximum Peak Pulse Current Ipp(A)	Maximum Reverse Leakage IR@VRWM (μA)
UNI	BI	UNI	BI		MIN	MAX				
SMAJ5.0A	SMAJ5.0CA	SMAJ5.0A	SMAJ5.0CA	5.00	6.40	7.00	10	9.2	43.5	3σ值
SMAJ6.0A	SMAJ6.0CA	SMAJ6.0A	SMAJ6.0CA	6.00	6.67	7.37	10	10.3	38.8	3σ值
SMAJ6.5A	SMAJ6.5CA	SMAJ6.5A	SMAJ6.5CA	6.50	7.22	7.98	10	11.2	35.7	3σ值
SMAJ7.0A	SMAJ7.0CA	SMAJ7.0A	SMAJ7.0CA	7.00	7.78	8.60	10	12.0	33.3	3σ值
SMAJ7.5A	SMAJ7.5CA	SMAJ7.5A	SMAJ7.5CA	7.50	8.33	9.21	1	12.9	31.0	3σ值
SMAJ8.0A	SMAJ8.0CA	SMAJ8.0A	SMAJ8.0CA	8.00	8.89	9.83	1	13.6	29.4	3σ值
SMAJ8.5A	SMAJ8.5CA	SMAJ8.5A	SMAJ8.5CA	8.50	9.44	10.40	1	14.4	27.8	3σ值
SMAJ9.0A	SMAJ9.0CA	SMAJ9.0A	SMAJ9.0CA	9.00	10.00	11.10	1	15.4	26.0	3σ值
SMAJ10A	SMAJ10CA	SMAJ10A	SMAJ10CA	10.50	11.10	12.30	1	17.0	23.5	1
SMAJ11A	SMAJ11CA	SMAJ11A	SMAJ11CA	11.55	12.20	13.50	1	18.2	22.0	1
SMAJ12A	SMAJ12CA	SMAJ12A	SMAJ12CA	12.60	13.30	14.70	1	19.9	20.1	1
SMAJ13A	SMAJ13CA	SMAJ13A	SMAJ13CA	13.65	14.40	15.90	1	21.5	18.6	1
SMAJ14A	SMAJ14CA	SMAJ14A	SMAJ14CA	14.70	15.60	17.20	1	23.2	17.2	1
SMAJ15A	SMAJ15CA	SMAJ15A	SMAJ15CA	15.75	16.70	18.50	1	24.4	16.4	1
SMAJ16A	SMAJ16CA	SMAJ16A	SMAJ16CA	16.80	17.80	19.70	1	26.0	15.4	1
SMAJ17A	SMAJ17CA	SMAJ17A	SMAJ17CA	17.85	18.90	20.90	1	27.6	14.5	1
SMAJ18A	SMAJ18CA	SMAJ18A	SMAJ18CA	18.90	20.00	22.10	1	29.2	13.7	1
SMAJ20A	SMAJ20CA	SMAJ20A	SMAJ20CA	21.00	22.20	24.50	1	32.4	12.3	1
SMAJ22A	SMAJ22CA	SMAJ22A	SMAJ22CA	23.10	24.40	26.90	1	35.5	11.3	1
SMAJ24A	SMAJ24CA	SMAJ24A	SMAJ24CA	25.20	26.70	29.50	1	38.9	10.3	1
SMAJ26A	SMAJ26CA	SMAJ26A	SMAJ26CA	27.30	28.90	31.90	1	42.1	9.5	1
SMAJ28A	SMAJ28CA	SMAJ28A	SMAJ28CA	29.40	31.10	34.40	1	45.4	8.8	1
SMAJ30A	SMAJ30CA	SMAJ30A	SMAJ30CA	31.50	33.30	36.80	1	48.4	8.3	1
SMAJ33A	SMAJ33CA	SMAJ33A	SMAJ33CA	34.65	36.70	40.60	1	53.3	7.	1
SMAJ36A	SMAJ36CA	SMAJ36A	SMAJ36CA	37.80	40.00	44.20	1	58.1	6.9	1
SMAJ40A	SMAJ40CA	SMAJ40A	SMAJ40CA	42.00	44.40	49.10	1	64.5	6.2	1
SMAJ43A	SMAJ43CA	SMAJ43A	SMAJ43CA	45.15	47.80	52.80	1	69.4	5.8	1
SMAJ45A	SMAJ45CA	SMAJ45A	SMAJ45CA	47.25	50.00	55.30	1	72.7	5.5	1
SMAJ48A	SMAJ48CA	SMAJ48A	SMAJ48CA	50.40	53.30	58.90	1	77.4	5.2	1
SMAJ51A	SMAJ51CA	SMAJ51A	SMAJ51CA	53.55	56.70	62.70	1	82.4	4.9	1
SMAJ54A	SMAJ54CA	SMAJ54A	SMAJ54CA	56.70	60.00	66.30	1	87.1	4.6	1

SMAJ58A	SMAJ58CA	SMAJ58A	SMAJ58CA	60.90	64.40	71.20	1	93.6	4.3	1
SMAJ60A	SMAJ60CA	SMAJ60A	SMAJ60CA	63.00	66.70	73.70	1	96.8	4.1	1
SMAJ64A	SMAJ64CA	SMAJ64A	SMAJ64CA	67.20	71.10	78.60	1	103.0	3.9	1
SMAJ70A	SMAJ70CA	SMAJ70A	SMAJ70CA	73.50	77.80	86.00	1	113.0	3.5	1
SMAJ75A	SMAJ75CA	SMAJ75A	SMAJ75CA	78.75	83.30	92.10	1	121.0	3.3	1
SMAJ78A	SMAJ78CA	SMAJ78A	SMAJ78CA	81.90	86.70	95.80	1	126.0	3.2	1
SMAJ85A	SMAJ85CA	SMAJ85A	SMAJ85CA	89.25	94.40	104.00	1	137.0	2.9	1
SMAJ90A	SMAJ90CA	SMAJ90A	SMAJ90CA	94.50	100.00	111.00	1	146.0	2.7	1
SMAJ100A	SMAJ100CA	SMAJ100A	SMAJ100CA	105.00	111.00	123.00	1	162.0	2.5	1
SMAJ110A	SMAJ110CA	SMAJ110A	SMAJ110CA	115.50	122.00	135.00	1	177.0	2.3	1
SMAJ120A	SMAJ120CA	SMAJ120A	SMAJ120CA	126.00	133.00	147.00	1	193.0	2.1	1
SMAJ130A	SMAJ130CA	SMAJ130A	SMAJ130CA	136.50	144.00	159.00	1	209.0	1.9	1
SMAJ150A	SMAJ150CA	SMAJ150A	SMAJ150CA	157.50	167.00	185.00	1	243.0	1.6	1
SMAJ160A	SMAJ160CA	SMAJ160A	SMAJ160CA	168.00	178.00	197.00	1	259.0	1.5	1
SMAJ170A	SMAJ170CA	SMAJ170A	SMAJ170CA	178.50	189.00	209.00	1	275.0	1.5	1
SMAJ180A	SMAJ180CA	SMAJ180A	SMAJ180CA	189.00	201.00	222.00	1	292.0	1.4	1
SMAJ190A	SMAJ190CA	SMAJ190A	SMAJ190CA	199.50	211.00	233.00	1	306.0	1.3	1
SMAJ200A	SMAJ200CA	SMAJ200A	SMAJ200CA	210.00	224.00	247.00	1	324.0	1.2	1
SMAJ210A	SMAJ210CA	SMAJ210A	SMAJ210CA	220.50	233.00	258.00	1	324.0	1.1	1
SMAJ220A	SMAJ220CA	SMAJ220A	SMAJ220CA	231.00	246.00	272.00	1	356.0	1.1	1
SMAJ250A	SMAJ250CA	SMAJ250A	SMAJ250CA	262.50	279.00	309.00	1	405.0	1.0	1
SMAJ300A	SMAJ300CA	SMAJ300A	SMAJ300CA	315.00	335.00	371.00	1	486.0	0.8	1
SMAJ350A	SMAJ350CA	SMAJ350A	SMAJ350CA	367.50	391.00	432.00	1	567.0	0.7	1
SMAJ400A	SMAJ400CA	SMAJ400A	SMAJ400CA	420.00	447.00	494.00	1	648.0	0.6	1
SMAJ440A	SMAJ440CA	SMAJ440A	SMAJ440CA	462.00	492.00	543.00	1	713.0	0.6	1

For Bi-directional type having VRWM of 10 Volts and less, the IR limit is double

1.A transient suppressor is normally selected according to the working peak reverse voltage (VRWM), which should be equal to or greater than the DC or continuous peak operating voltage level.

2. VBR measured at pulse test current IT at an ambient temperature of 25°C.

3. Surge current waveform per Figure 2 and derate per Figure 3

RATINGS AND CHARACTERISTIC CURVES(SMAJ SERIES)

FIG. 1-PEAK PULSE POWER CURVE

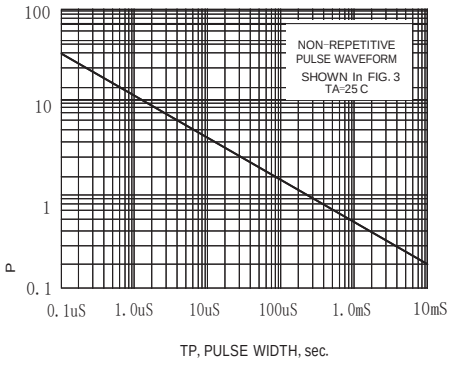


FIG. 2-PULSE DERATING CURVE

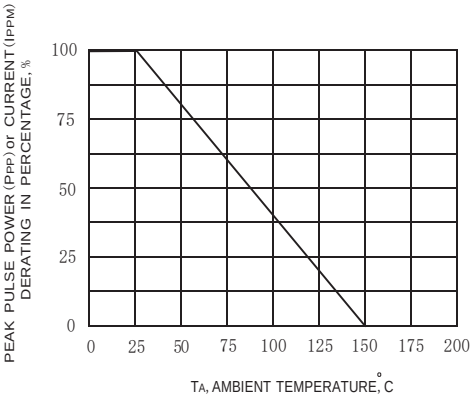


FIG. 3-PULSE WAVEFORM

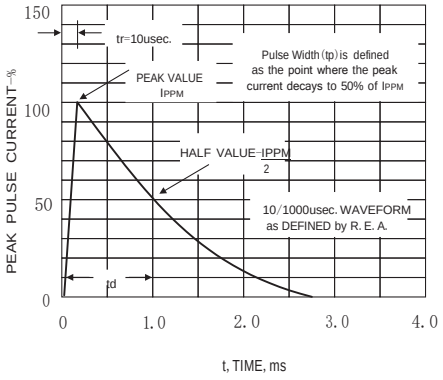


FIG. 4-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

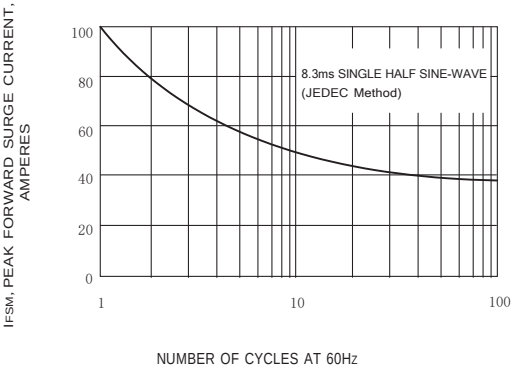


FIG. 5-Steady State Power Derating Curve

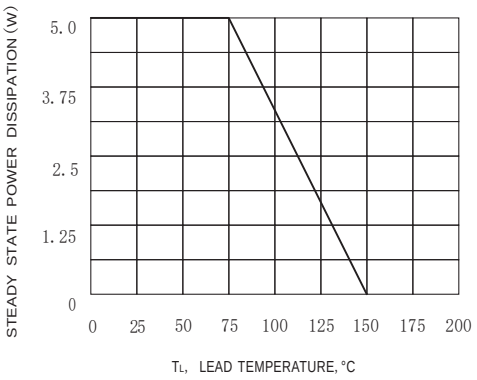
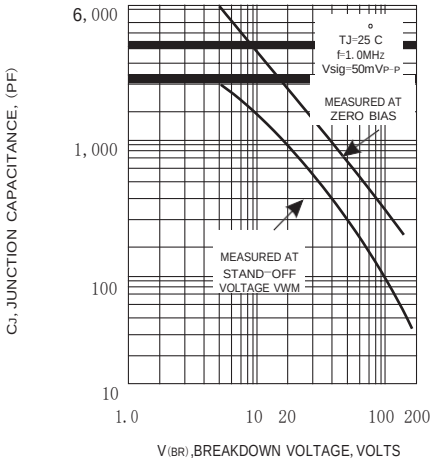
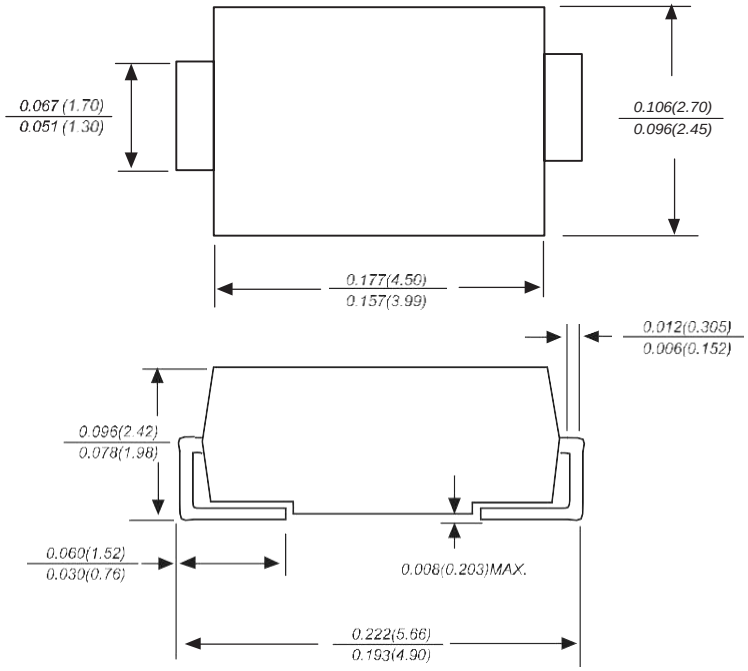


FIG. 6-TYPICAL JUNCTION CAPACITANCE

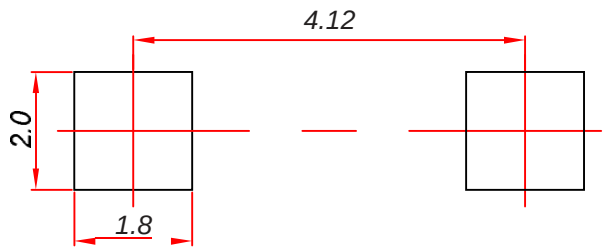


SMA Package Outline Dimensions



Dimensions in inches and (millimeters)

SMA Suggested Pad Layout



Note:
1.Controlling dimension:in millimeters.
2.General tolerance:± 0.05mm.
3.The pad layout is for reference purposes only.

Reel Taping Specifications For Surface Mount Devices-SMA

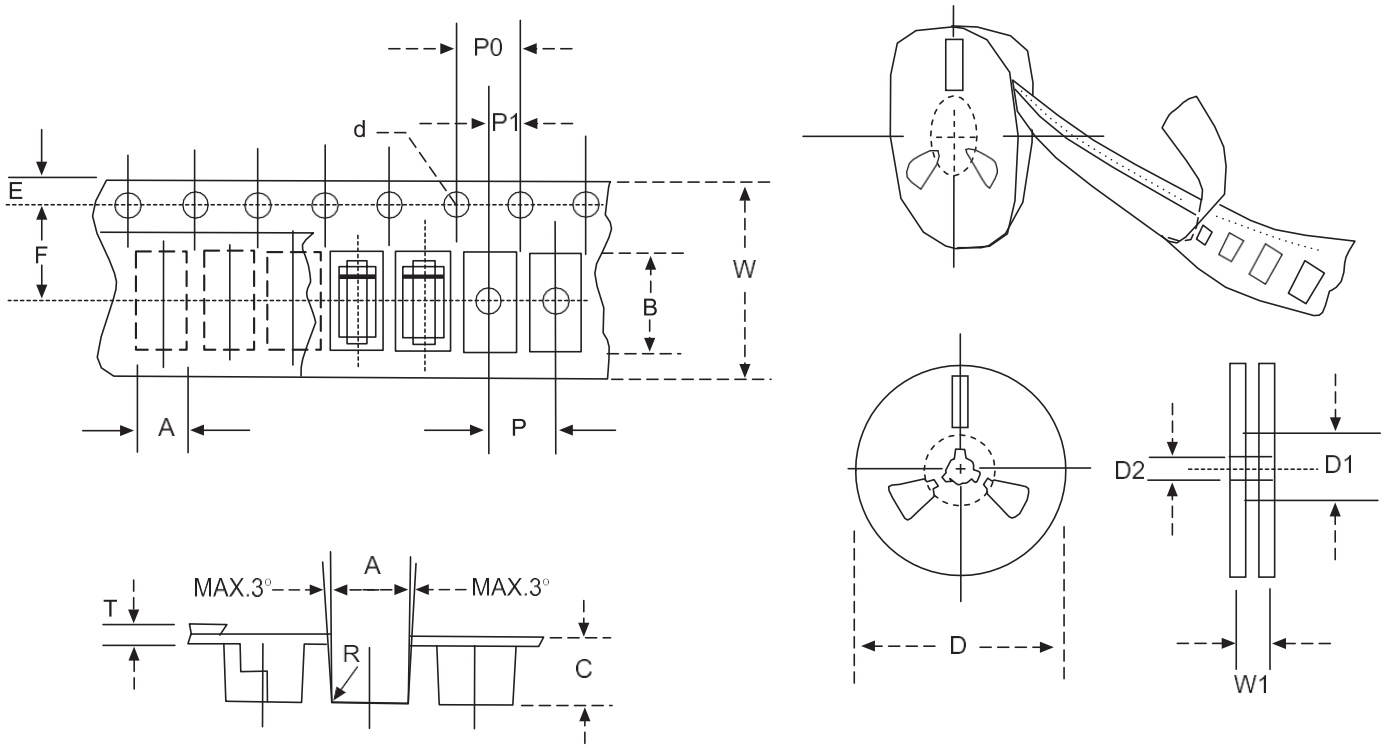


FIG:CONFIGURATION OF SURFACE MOUNTED DEVICES TAPING

ITEM	SYMBOL	SMA mm(inch)
Carrier width	A	2.79±0.1(0.110±0.004)
Carrier length	B	5.33±0.1(0.210±0.004)
Carrier depth	C	2.36±0.1(0.093±0.004)
Sprocket hole	d	1.55±0.05(0.061±0.002)
Reel outside diameter	D	279±2.0 (11±0.079)
Reel inner diameter	D1	75±1.0 (2.95±0.039)
Feed hole diameter	D2	13±0.5(0.512±0.020)
Stroket hole position	E	1.75±0.1(0.069±0.004)
Punch hole position	F	5.5±0.05(0.217±0.002)
Punch hole pitch	P	4.0±0.1(0.157±0.004)
Sprocket hole pitch	P0	4.0±0.1(0.157±0.004)
Embossment center	P1	2.0±0.1(0.079±0.004)
Totall tape thickness	T	0.28±0.02(0.011±0.0008)
Tape width	W	12.0±0.2(0.472±0.008)
Reel width	W1	16.8±2.0(0.661±0.079)

NOTE:Devices are packed in accordance with EIA standard RS-481-A and specification given above.