

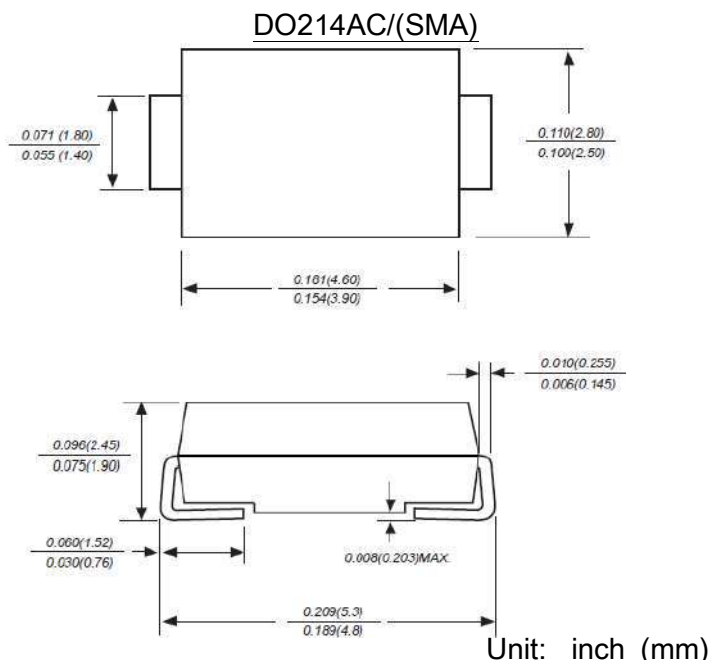
## Surface Mount Transient Voltage Suppressor Rectifiers

### Features:

- Glass passivated chip
- 600 W peak pulse power capability with a 10/1000 us waveform, repetitive rate (duty cycle):0.01 %
- Excellent clamping capability
- Low reverse leakage
- Very fast response time
- Lead and body according with RoHSstandard

### Mechanical Data:

- Case: DO214AC/(SMA) Molded plastic
- Lead: Solderable per MIL-STD-750, method 2026
- Epoxy: UL 94V-0 rate flame retardant
- Polarity: Color band denotes cathode end except Bipolar
- Mounting position: Any



Maximum Ratings & Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

Parameter	Symbols	Value	Unit
Peak power dissipation with a 10/1000 us waveform <sup>(1)</sup>	P <sub>PP</sub>	600	W
Peak pulse current with a 10/1000 us waveform <sup>(1)</sup>	I <sub>PP</sub>	See Next Table	A
Power dissipation on infinite heatsink at TL = 75 °C	P <sub>D</sub>	5.0	W
Peak forward surge current, 8.3 ms single half sinewave unidirectional only <sup>(2)</sup>	I <sub>FSM</sub>	60	A
Maximum instantaneous forward voltage at 25 A for unidirectional only <sup>(3)</sup>	V <sub>F</sub>	3.5/6.5	V
Operating junction and storage temperature range	T <sub>J</sub> , T <sub>STG</sub>	-55 to +150	°C

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<3.5V for devices of VBR<200V and VF<6.5V for devices of VBR>201V.



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)	$I_T(mA)$	$V_{C MAX.}(V)$	$I_{PP}(A)$	$I_R(\mu A)$
P6SMA6.8A	P6SMA6.8CA	66V8A	66V8C	5.8	6.45	7.14	10	10.5	58.1	1000
P6SMA7.5A	P6SMA7.5CA	67V5A	67V5C	6.4	7.13	7.88	10	11.3	54.0	500
P6SMA8.2A	P6SMA8.2CA	68V2A	68V2C	7.0	7.79	8.61	10	12.1	50.4	200
P6SMA9.1A	P6SMA9.1CA	69V1A	69V1C	7.8	8.65	9.55	1	13.4	45.5	50
P6SMA10A	P6SMA10CA	610A	610C	8.6	9.50	10.50	1	14.5	42.1	10
P6SMA11A	P6SMA11CA	611A	611C	9.4	10.50	11.60	1	15.6	39.1	5
P6SMA12A	P6SMA12CA	612A	612C	10.2	11.40	12.60	1	16.7	36.5	5
P6SMA13A	P6SMA13CA	613A	613C	11.1	12.40	13.70	1	18.2	33.5	1
P6SMA15A	P6SMA15CA	615A	615C	12.8	14.30	15.80	1	21.2	28.8	1
P6SMA16A	P6SMA16CA	616A	616C	13.6	15.20	16.80	1	22.5	27.1	1
P6SMA18A	P6SMA18CA	618A	618C	15.3	17.10	18.90	1	25.5	24.2	1
P6SMA20A	P6SMA20CA	620A	620C	17.1	19.00	21.00	1	27.7	22.0	1
P6SMA22A	P6SMA22CA	622A	622C	18.8	20.90	23.10	1	30.6	19.9	1
P6SMA24A	P6SMA24CA	624A	624C	20.5	22.80	25.20	1	33.2	18.4	1
P6SMA27A	P6SMA27CA	627A	627C	23.1	25.70	28.40	1	37.5	16.3	1
P6SMA30A	P6SMA30CA	630A	630C	25.6	28.50	31.50	1	41.4	14.7	1
P6SMA33A	P6SMA33CA	633A	633C	28.2	31.40	34.70	1	45.7	13.3	1
P6SMA36A	P6SMA36CA	636A	636C	30.8	34.20	37.80	1	49.9	12.2	1
P6SMA39A	P6SMA39CA	639A	639C	33.3	37.10	41.00	1	53.9	11.3	1
P6SMA43A	P6SMA43CA	643A	643C	36.8	40.90	45.20	1	59.3	10.3	1
P6SMA47A	P6SMA47CA	647A	647C	40.2	44.70	49.40	1	64.8	9.4	1
P6SMA51A	P6SMA51CA	651A	651C	43.6	48.50	53.60	1	70.1	8.7	1
P6SMA56A	P6SMA56CA	656A	656C	47.8	53.20	58.80	1	77.0	7.9	1
P6SMA62A	P6SMA62CA	662A	662C	53.0	58.90	65.10	1	85.0	7.2	1
P6SMA68A	P6SMA68CA	668A	668C	58.1	64.60	71.40	1	92.0	6.6	1
P6SMA75A	P6SMA75CA	675A	675C	64.1	71.30	78.80	1	103.0	5.9	1
P6SMA82A	P6SMA82CA	682A	682C	70.1	77.90	86.10	1	113.0	5.4	1
P6SMA91A	P6SMA91CA	691A	691C	77.8	86.50	95.50	1	125.0	4.9	1
P6SMA100A	P6SMA100CA	6100A	6100C	85.5	95.0	105.0	1	137.0	4.5	1
P6SMA110A	P6SMA110CA	6110A	6110C	94.0	105.0	116.0	1	152.0	4.0	1
P6SMA120A	P6SMA120CA	6120A	6120C	102.0	114.0	126.0	1	165.0	3.7	1
P6SMA130A	P6SMA130CA	6130A	6130C	111.0	124.0	137.0	1	179.0	3.4	1
P6SMA150A	P6SMA150CA	6150A	6150C	128.0	143.0	158.0	1	207.0	2.9	1
P6SMA160A	P6SMA160CA	6160A	6160C	136.0	152.0	168.0	1	219.0	2.8	1
P6SMA170A	P6SMA170CA	6170A	6170C	145.0	162.0	179.0	1	234.0	2.6	1
P6SMA180A	P6SMA180CA	6180A	6180C	154.0	171.0	189.0	1	246.0	2.5	1
P6SMA200A	P6SMA200CA	6200A	6200C	171.0	190.0	210.0	1	274.0	2.2	1
P6SMA220A	P6SMA220CA	6220A	6220C	185.0	209.0	231.0	1	328.0	1.9	1
P6SMA250A	P6SMA250CA	6250A	6250C	214.0	237.0	263.0	1	344.0	1.8	1
P6SMA300A	P6SMA300CA	6300A	6300C	256.0	285.0	315.0	1	414.0	1.5	1
P6SMA350A	P6SMA350CA	6350A	6350C	300.0	332.0	368.0	1	482.0	1.3	1
P6SMA400A	P6SMA400CA	6400A	6400C	342.0	380.0	420.0	1	548.0	1.1	1
P6SMA440A	P6SMA440CA	6440A	6440C	376.0	418.0	462.0	1	602.0	1.0	1
P6SMA480A		6480A		408.0	456.0	504.0	1	658.0	0.9	1
P6SMA510A		6510A		434.0	485.0	535.0	1	698.0	0.9	1
P6SMA530A		6530A		450.0	503.0	556.0	1	725.0	0.8	1

Ratings and Characteristics Curves (TA=25°C unless otherwise noted)

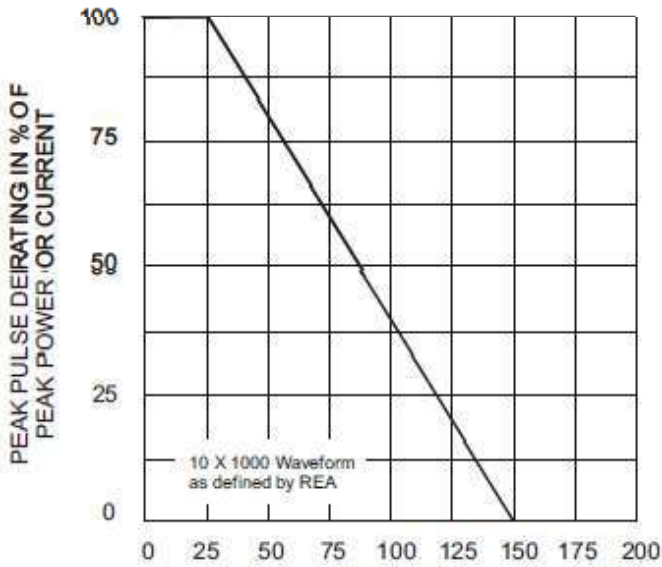


Fig. 1 - Pulse Derating Curve

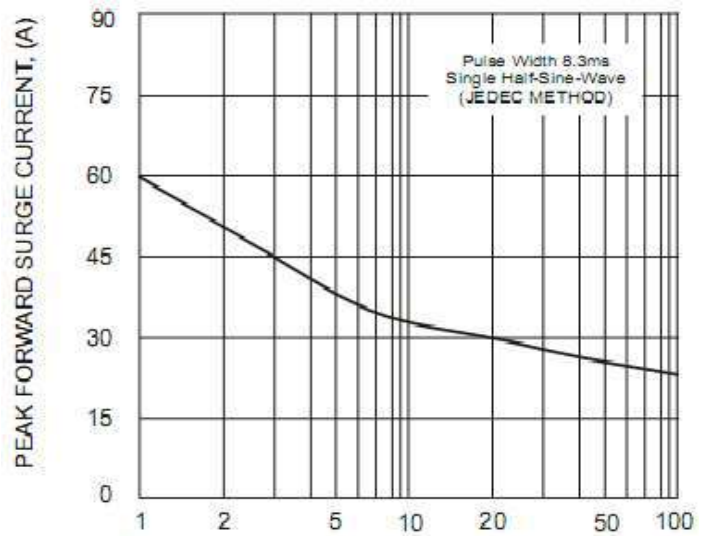


Fig. 2 - Maximum Non-Repetitive Surge Current

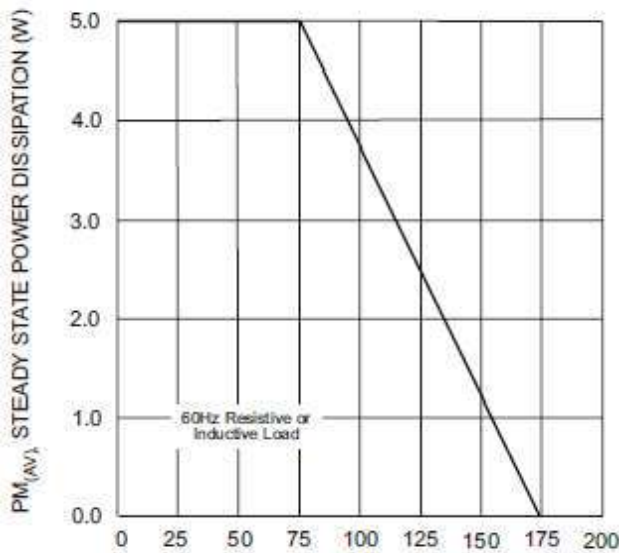


Fig. 3 - Steady State Power Derating Curve

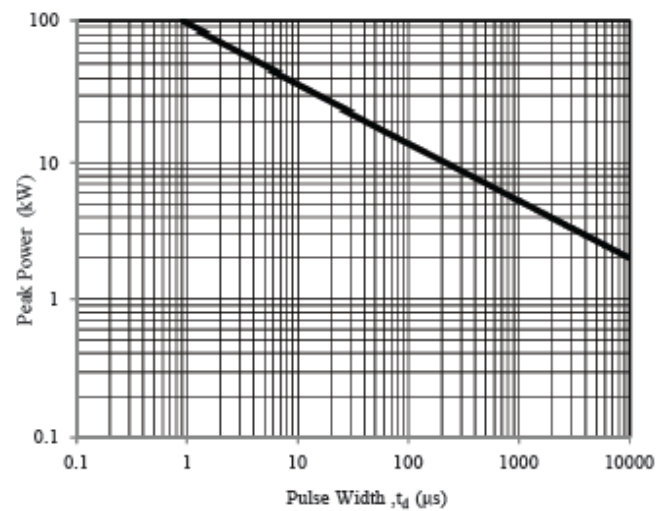


Fig. 4 - Peak Pulse Power Rating Curve

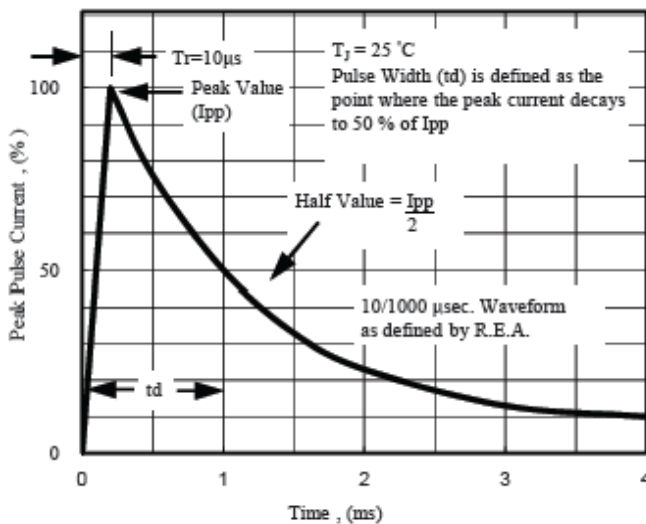


Fig. 5 - Pulse Waveform

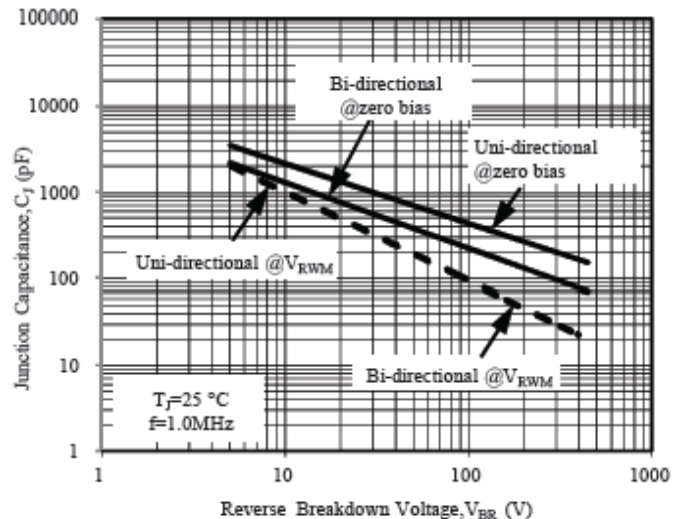
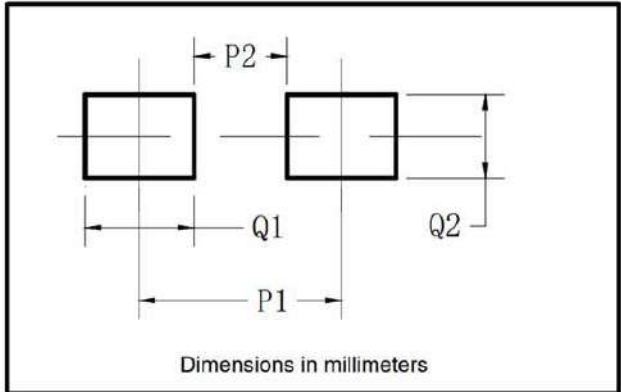


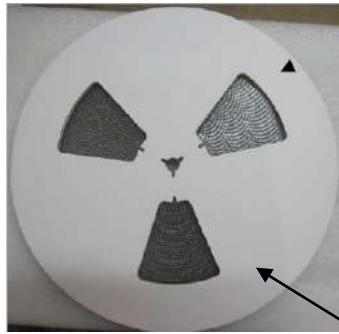
Fig. 6 - Typical Junction Capacitance

■Suggested Pad Layout

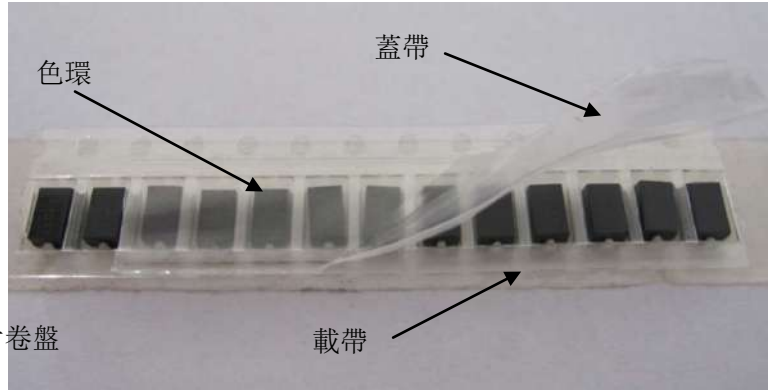


DO-214AC(SMA)	
Dim	Millimeters
P1	4.00
P2	1.50
Q1	2.50
Q2	1.70

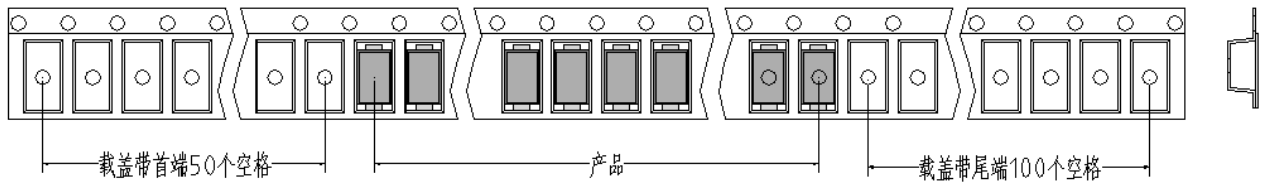
1、SMA 產品包裝外觀：



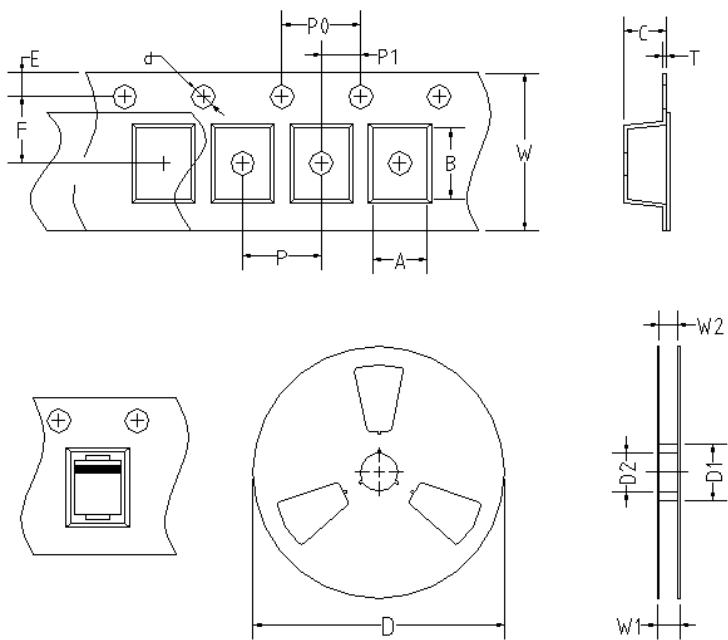
13 寸卷盤



13 寸內盒



2、載蓋帶尺寸：



Symbol	SMA
A	2.79±0.15
B	5.33±0.15
C	2.36±0.15
d	1.55±0.10
D	330.0±1.0
D1	75±1.0
D2	13.5±1.0
E	1.75±0.10
F	5.50±0.05
P	4.00±0.10
P0	4.00±0.10
P1	2.00±0.10
T	0.30±0.10
W	12.00±0.15
W1	18.1±1.5
W2	13.5±1.0