



TVS 瞬態電壓抑制二極管
Voltage : 5.0V - 170V

A6SMBJ5.0 - A6SMBJ170CA
600W Surface Mount Transient Voltage Suppressor

□ Feature

- ◆ Fast Response Time
- ◆ 5.0V-170V Stand-off Voltage
- ◆ Excellent Clamping Capability
- ◆ Glass Passivated Die Construction
- ◆ 600W Peak Pulse Power Dissipation
- ◆ Uni-and Bi-Directional Versions Available
- ◆ Plastic Case Material has UL Flammability Classification Rating 94V-0

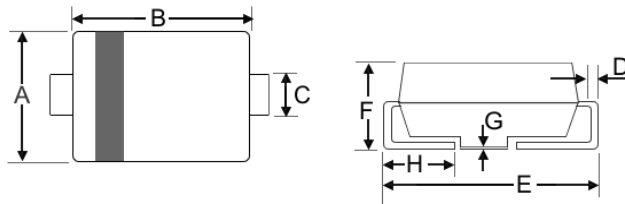
□ Mechanical Data

- ◆ Weight: 0.093 grams (approx)
- ◆ Marking: Device Marking Code
- ◆ Case: SMB/DO-214AA, Molded Plastic
- ◆ Polarity: Cathode Band Except Bi-Directional
- ◆ Terminals: Solder Plated, Solderable per MIL-STD-750, Method 2026.
- ◆ Lead Free: For **RoHS** / Lead Free Version Add "-LF" Suffix to part Number.

□ Dimension

Case: SMB/DO-214AA (mm)

Dim	Min	Max
A	3.3	3.94
B	4.1	4.7
C	1.91	2.11
D	0.152	0.305
E	5.08	5.59
F	2.1	2.44
G	0.051	0.203
H	0.76	1.27



"C" : Suffix designates Bi-directional Devices
 "A" : Suffix designates ±5% Tolerance Devices
 "No" : Suffix designates ±10% Tolerance Devices

□ Maximum Ratings and Electrical Characteristics @T_A=25°C unless otherwise specified

CHARACTERISTIC	Symbol	Value	Unit
Peak Pulse Power Dissipation 10/1000µS Waveform (note 1,2) Figure 3.	P _{PPM}	600 Min.	W
Peak pulse current on 10/1000µS Waveform (note 1) Figure 4.	I _{PPM}	Table 1	A
Steady state power dissipation (note 4)	P _{M(AV)}	5.0	A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method) Note 2, 3)	I _{FSM}	100	W
Typical thermal resistance, Junction to lead (note 5)	R _{θJL}	20	°C/W
		100	°C/W
Operating and Storage Temperature Range	T _J , T _{STG.}	-55~+150	°C

- Note:
1. Non-repetitive current pulse per Figure 4 and derated above T_A =25°C per Figure 1.
 2. Mounted on 5.0mm² copper pad to each terminal
 3. 8.3ms single half sine-wave cycle = 4 pulses per minutes maximum.
 4. Lead temperature at 75°C.
 5. Peak pulse power waveform is 10/1000µS.
 6. Mounted on minimum recommended pad layout.

特性:

1. 高效能保護器件; 2. 吸收反向瞬態脈衝; 3. 漏電流低擊穿電壓偏差小; 4. 電路異常下反應快.

Figure Case SMB/DO-214AA



SINLOON®

TVS 瞬態電壓抑制二極管

A6SMCJ5.0 - A6SMCJ170CA

Voltage : 5.0V - 170V

600W Surface Mount Transient Voltage Suppressor

UNI-Directional 600 Watt Surface Mount TVS (Table 1)

UNI Directional	Device Marking	Reverse Stand-off Voltage $V_{RWM}(V)$	Breakdown Voltage $V_{BR}(V)$		Test Current I_T (mA)	Max. Clamping Voltage $I_{pp} V_c(V)$	Peak Pulse Current $I_{pp}(A)$	Reverse Leakage @ V_{RWM} IR (μA)
			Min. @ I_T	Max. @ I_T				
Part No.	Code							
A6SMBJ5.0	KD	5.0	6.40	7.30	10	9.6	62.50	800.0
A6SMBJ5.0A	KE	5.0	6.40	7.00	10	9.2	65.20	800.0
A6SMBJ6.0	KF	6.0	6.67	8.15	10	11.4	52.60	800.0
A6SMBJ6.0A	KG	6.0	6.67	7.37	10	10.3	58.30	800.0
A6SMBJ6.5	KH	6.5	7.55	8.82	10	12.3	48.70	800.0
A6SMBJ6.5A	KK	6.5	7.55	7.98	10	11.2	53.60	500.0
A6SMBJ7.0	KL	7.0	7.78	9.51	10	13.3	45.10	500.0
A6SMBJ7.0A	KM	7.0	7.78	8.60	10	12.0	50.00	200.0
A6SMBJ7.5	KN	7.5	8.33	10.20	1	14.3	42.00	200.0
A6SMBJ7.5A	KP	7.5	8.33	9.21	1	12.9	46.50	100.0
A6SMBJ8.0	KQ	8.0	8.89	10.90	1	15.0	40.00	100.0
A6SMBJ8.0A	KR	8.0	8.89	9.83	1	13.6	44.10	50.0
A6SMBJ8.5	KS	8.5	9.44	11.50	1	15.9	37.70	50.0
A6SMBJ8.5A	KT	8.5	9.44	10.40	1	14.4	41.70	10.0
A6SMBJ9.0	KU	9.0	10.0	12.20	1	16.9	35.50	10.0
A6SMBJ9.0A	KV	9.0	10.0	11.10	1	15.4	39.00	5.0
A6SMBJ10	KW	10.0	11.1	13.60	1	18.8	31.90	5.0
A6SMBJ10A	KX	10.0	11.1	12.30	1	17.0	35.30	5.0
A6SMBJ11	KY	11.0	12.2	14.90	1	20.1	29.90	5.0
A6SMBJ11A	KZ	11.0	12.2	13.50	1	18.2	33.00	5.0
A6SMBJ12	LD	12.0	13.3	16.30	1	22.0	27.30	5.0
A6SMBJ12A	LE	12.0	13.3	14.70	1	19.9	30.20	5.0
A6SMBJ13	LF	13.0	14.4	17.60	1	23.8	25.20	1.0
A6SMBJ13A	LG	13.0	14.4	15.90	1	21.5	27.90	1.0
A6SMBJ14	LH	14.0	15.6	19.10	1	25.8	23.30	1.0
A6SMBJ14A	LK	14.0	15.6	17.20	1	23.2	25.80	1.0
A6SMBJ15	LL	15.0	16.7	20.40	1	26.9	22.30	1.0
A6SMBJ15A	LM	15.0	16.7	18.50	1	24.4	24.00	1.0
A6SMBJ16	LN	16.0	17.8	21.80	1	28.8	20.80	1.0
A6SMBJ16A	LP	16.0	17.8	19.70	1	26.0	23.10	1.0
A6SMBJ17	LQ	17.0	18.9	23.10	1	30.5	19.70	1.0
A6SMBJ17A	LR	17.0	18.9	20.90	1	27.6	21.70	1.0
A6SMBJ18	LS	18.0	20.0	24.40	1	32.2	18.60	1.0
A6SMBJ18A	LT	18.0	20.0	22.10	1	29.2	20.50	1.0
A6SMBJ20	LU	20.0	22.2	27.10	1	35.8	16.70	1.0
A6SMBJ20A	LV	20.0	22.2	24.50	1	32.4	18.50	1.0
A6SMBJ22	LW	22.0	24.4	29.80	1	39.4	15.20	1.0
A6SMBJ22A	LX	22.0	24.4	26.90	1	35.5	16.90	1.0
A6SMBJ24	LY	24.0	26.7	32.60	1	43.0	14.00	1.0
A6SMBJ24A	LZ	24.0	26.7	29.50	1	38.9	15.40	1.0
A6SMBJ26	MD	26.0	28.9	36.30	1	46.6	12.40	1.0
A6SMBJ26A	ME	26.0	28.9	31.90	1	42.1	14.20	1.0
A6SMBJ28	MF	28.0	31.1	38.00	1	50.0	12.00	1.0
A6SMBJ28A	MG	28.0	31.1	34.40	1	45.4	13.20	1.0
A6SMBJ30	MH	30.0	33.3	40.70	1	53.5	11.20	1.0
A6SMBJ30A	MK	30.0	33.3	36.80	1	48.4	12.40	1.0
A6SMBJ33	ML	33.0	36.7	44.90	1	59.0	10.20	1.0
A6SMBJ33A	MM	33.0	36.7	40.60	1	53.3	11.30	1.0
A6SMBJ36	MN	36.0	40.0	48.90	1	64.3	9.30	1.0
A6SMBJ36A	MP	36.0	40.0	44.20	1	58.1	10.30	1.0
A6SMBJ40	MQ	40.0	44.4	54.30	1	71.4	8.40	1.0
A6SMBJ40A	MR	40.0	44.4	49.10	1	64.5	9.30	1.0
A6SMBJ43	MS	43.0	47.8	58.40	1	76.7	7.80	1.0
A6SMBJ43A	MT	43.0	47.8	52.80	1	69.4	8.60	1.0
A6SMBJ45	MU	45.0	50.0	61.10	1	80.3	7.50	1.0
A6SMBJ45A	MV	45.0	50.0	55.30	1	72.7	8.30	1.0
A6SMBJ48	MW	48.0	53.3	65.10	1	85.5	7.00	1.0
A6SMBJ48A	MX	48.0	53.3	58.90	1	77.4	7.70	1.0
A6SMBJ51	MY	50.0	56.7	69.30	1	91.1	6.60	1.0
A6SMBJ51A	MZ	51.0	56.7	62.70	1	82.4	7.30	1.0
A6SMBJ54	ND	54.0	60.0	73.30	1	96.3	6.20	1.0
A6SMBJ54A	NE	54.0	60.0	66.30	1	87.1	6.90	1.0
A6SMBJ58	NF	58.0	64.4	78.70	1	103.0	5.80	1.0
A6SMBJ58A	NG	58.0	64.4	71.20	1	93.6	6.40	1.0
A6SMBJ60	NH	60.0	66.7	81.50	1	107.0	5.60	1.0
A6SMBJ60A	NK	60.0	66.7	73.70	1	96.8	6.20	1.0
A6SMBJ64	NL	64.0	71.1	86.90	1	114.0	5.30	1.0
A6SMBJ64A	NM	64.0	71.1	78.60	1	103.0	5.80	1.0
A6SMBJ70	NN	70.0	77.8	95.10	1	125.0	4.80	1.0
A6SMBJ70A	NP	70.0	77.8	86.10	1	113.0	5.30	1.0
A6SMBJ75	NQ	75.0	83.3	102.00	1	134.0	4.50	1.0
A6SMBJ75A	NR	75.0	83.3	92.10	1	121.0	4.90	1.0
A6SMBJ78	NS	78.0	86.7	106.00	1	139.0	4.30	1.0
A6SMBJ78A	NT	78.0	86.7	95.80	1	126.0	4.70	1.0
A6SMBJ85	NU	85.0	94.4	115.00	1	151.0	3.90	1.0
A6SMBJ85A	NV	85.0	94.4	104.00	1	137.0	4.40	1.0
A6SMBJ90	NW	90.0	100	122.00	1	160.0	3.80	1.0
A6SMBJ90A	NX	90.0	100	111.00	1	146.0	4.10	1.0
A6SMBJ100	NY	100.0	111	136.00	1	179.0	3.40	1.0
A6SMBJ100A	NX	100.0	111	123.00	1	162.0	3.70	1.0
A6SMBJ110	PD	110.0	122	149.00	1	196.0	3.00	1.0
A6SMBJ110A	PE	110.0	122	135.00	1	177.0	3.40	1.0
A6SMBJ120	PF	120.0	133	163.00	1	214.0	2.80	1.0
A6SMBJ120A	PG	120.0	133	147.00	1	193.0	3.10	1.0
A6SMBJ130	PH	130.0	144	176.00	1	231.0	2.60	1.0
A6SMBJ130A	PK	130.0	144	159.00	1	209.0	2.90	1.0
A6SMBJ150	PL	150.0	167	204.00	1	268.0	2.20	1.0
A6SMBJ150A	PM	150.0	167	185.00	1	243.0	2.50	1.0
A6SMBJ160	PN	160.0	178	218.00	1	287.0	2.10	1.0
A6SMBJ160A	PP	160.0	178	197.00	1	259.0	2.30	1.0
A6SMBJ170	PQ	170.0	189	231.00	1	304.0	2.00	1.0
A6SMBJ170A	PR	170.0	189	209.00	1	275.0	2.2	1.0



品質承諾標誌
QUALITY COMMITMENT

SINLOON®

TVS 瞬態電壓抑制二極管

A6SMBJ5.0 - A6SMBJ170CA

Voltage : 5.0V - 170V

600W Surface Mount Transient Voltage Suppressor

□ Bi-Directional 600 Watt Surface Mount TVS (Table 1)

UNI Directional	Device Marking	Reverse Stand-off Voltage $V_{RWM}(V)$	Breakdown Voltage $V_{BR}(V)$		Test Current I_T (mA)	Max. Clamping Voltage $I_{pp} V_c(V)$	Peak Pulse Current $I_{pp}(A)$	Reverse Leakage @ V_{RWM} IR (μA)
			Min. @ I_T	Max. @ I_T				
Part No.	Code							
A6SMBJ5.0C	AD	5.0	6.40	7.30	10	9.6	62.50	1600.0
A6SMBJ5.0CA	AE	5.0	6.40	7.00	10	9.2	65.20	1600.0
A6SMBJ6.0C	AF	6.0	6.67	8.15	10	11.4	52.60	1600.0
A6SMBJ6.0CA	AG	6.0	6.67	7.37	10	10.3	58.30	1600.0
A6SMBJ6.5C	AH	6.5	7.55	8.82	10	12.3	48.70	1000.0
A6SMBJ6.5CA	AK	6.5	7.55	7.98	10	11.2	53.60	1000.0
A6SMBJ7.0C	AL	7.0	7.78	9.51	10	13.3	45.10	400.0
A6SMBJ7.0CA	AM	7.0	7.78	8.60	10	12.0	50.00	400.0
A6SMBJ7.5C	AN	7.5	8.33	10.20	1	14.3	42.00	200.0
A6SMBJ7.5CA	AP	7.5	8.33	9.21	1	12.9	46.50	200.0
A6SMBJ8.0C	AQ	8.0	8.89	10.90	1	15.0	40.00	100.0
A6SMBJ8.0CA	AR	8.0	8.89	9.83	1	13.6	44.10	100.0
A6SMBJ8.5C	AS	8.5	9.44	11.50	1	15.9	37.70	200.0
A6SMBJ8.5CA	AT	8.5	9.44	10.40	1	14.4	41.70	200.0
A6SMBJ9.0C	AU	9.0	10.0	12.20	1	16.9	35.50	5.0
A6SMBJ9.0CA	AV	9.0	10.0	11.10	1	15.4	39.00	5.0
A6SMBJ10C	AW	10.0	11.1	13.60	1	18.8	31.90	5.0
A6SMBJ10CA	AX	10.0	11.1	12.30	1	17.0	35.30	5.0
A6SMBJ11C	AY	11.0	12.2	14.90	1	20.1	29.90	5.0
A6SMBJ11CA	AZ	11.0	12.2	13.50	1	18.2	33.00	5.0
A6SMBJ12C	BD	12.0	13.3	16.30	1	22.0	27.30	5.0
A6SMBJ12CA	BE	12.0	13.3	14.70	1	19.9	30.20	5.0
A6SMBJ13C	BF	13.0	14.4	17.60	1	23.8	25.20	1.0
A6SMBJ13CA	BG	13.0	14.4	15.90	1	21.5	27.90	1.0
A6SMBJ14C	BH	14.0	15.6	19.10	1	25.8	23.30	1.0
A6SMBJ14CA	BK	14.0	15.6	17.20	1	23.2	25.80	1.0
A6SMBJ15C	BL	15.0	16.7	20.40	1	26.9	22.30	1.0
A6SMBJ15CA	BM	15.0	16.7	18.50	1	24.4	24.00	1.0
A6SMBJ16C	BN	16.0	17.8	21.80	1	28.8	20.80	1.0
A6SMBJ16CA	NP	16.0	17.8	19.70	1	26.0	23.10	1.0
A6SMBJ17C	BQ	17.0	18.9	23.10	1	30.5	19.70	1.0
A6SMBJ17CA	BR	17.0	18.9	20.90	1	27.6	21.70	1.0
A6SMBJ18C	BS	18.0	20.0	24.40	1	32.2	18.60	1.0
A6SMBJ18CA	BT	18.0	20.0	22.10	1	29.2	20.50	1.0
A6SMBJ20C	BV	20.0	22.2	27.10	1	35.8	16.70	1.0
A6SMBJ20CA	BV	20.0	22.2	24.50	1	32.4	18.50	1.0
A6SMBJ22C	BW	22.0	24.4	29.80	1	39.4	15.20	1.0
A6SMBJ22CA	BX	22.0	24.4	26.90	1	35.5	16.90	1.0
A6SMBJ24C	BY	24.0	26.7	32.60	1	43.0	14.00	1.0
A6SMBJ24CA	BZ	24.0	26.7	29.50	1	38.9	15.40	1.0
A6SMBJ26C	CD	26.0	28.9	36.30	1	46.6	12.40	1.0
A6SMBJ26CA	CE	26.0	28.9	31.90	1	42.1	14.20	1.0
A6SMBJ28C	CF	28.0	31.1	38.00	1	50.0	12.00	1.0
A6SMBJ28CA	CG	28.0	31.1	34.40	1	45.4	13.20	1.0
A6SMBJ30C	CH	30.0	33.3	40.70	1	53.5	11.20	1.0
A6SMBJ30CA	CK	30.0	33.3	36.80	1	48.4	12.40	1.0
A6SMBJ33C	CL	33.0	36.7	44.90	1	59.0	10.20	1.0
A6SMBJ33CA	CM	33.0	36.7	40.60	1	53.3	11.30	1.0
A6SMBJ36C	CN	36.0	40.0	48.90	1	64.3	9.30	1.0
A6SMBJ36CA	CP	36.0	40.0	44.20	1	58.1	10.30	1.0
A6SMBJ40C	CQ	40.0	44.4	54.30	1	71.4	8.40	1.0
A6SMBJ40CA	CR	40.0	44.4	49.10	1	64.5	9.30	1.0
A6SMBJ43C	CS	43.0	47.8	58.40	1	76.7	7.80	1.0
A6SMBJ43CA	CT	43.0	47.8	52.80	1	69.4	8.60	1.0
A6SMBJ45C	CU	45.0	50.0	61.10	1	80.3	7.50	1.0
A6SMBJ45CA	CV	45.0	50.0	55.30	1	72.7	8.30	1.0
A6SMBJ48C	CW	48.0	53.3	65.10	1	85.5	7.00	1.0
A6SMBJ48CA	CX	48.0	53.3	58.90	1	77.4	7.70	1.0
A6SMBJ51C	CY	50.0	56.7	69.30	1	91.1	6.60	1.0
A6SMBJ51CA	CZ	51.0	56.7	62.70	1	82.4	7.30	1.0
A6SMBJ54C	DD	54.0	60.0	73.30	1	96.3	6.20	1.0
A6SMBJ54CA	DE	54.0	60.0	66.30	1	87.1	6.90	1.0
A6SMBJ58C	DF	58.0	64.4	78.70	1	103.0	5.80	1.0
A6SMBJ58CA	DG	58.0	64.4	71.20	1	93.6	6.40	1.0
A6SMBJ60C	DH	60.0	66.7	81.50	1	107.0	5.60	1.0
A6SMBJ60CA	DK	60.0	66.7	73.70	1	96.8	6.20	1.0
A6SMBJ64C	DL	64.0	71.1	86.90	1	114.0	5.30	1.0
A6SMBJ64CA	DM	64.0	71.1	78.60	1	103.0	5.80	1.0
A6SMBJ70C	DN	70.0	77.8	95.10	1	125.0	4.80	1.0
A6SMBJ70CA	DP	70.0	77.8	86.10	1	113.0	5.30	1.0
A6SMBJ75C	DQ	75.0	83.3	102.00	1	134.0	4.50	1.0
A6SMBJ75CA	DR	75.0	83.3	92.10	1	121.0	4.90	1.0
A6SMBJ78C	DS	78.0	86.7	106.00	1	139.0	4.30	1.0
A6SMBJ78CA	DT	78.0	86.7	95.80	1	126.0	4.70	1.0
A6SMBJ85C	DU	85.0	94.4	115.00	1	151.0	3.90	1.0
A6SMBJ85CA	DV	85.0	94.4	104.00	1	137.0	4.40	1.0
A6SMBJ90C	DW	90.0	100	122.00	1	160.0	3.80	1.0
A6SMBJ90CA	DX	90.0	100	111.00	1	146.0	4.10	1.0
A6SMBJ100C	DY	100.0	111	136.00	1	179.0	3.40	1.0
A6SMBJ100CA	DZ	100.0	111	123.00	1	162.0	3.70	1.0
A6SMBJ110C	ED	110.0	122	149.00	1	196.0	3.00	1.0
A6SMBJ110CA	EE	110.0	122	135.00	1	177.0	3.40	1.0
A6SMBJ120C	EF	120.0	133	163.00	1	214.0	2.80	1.0
A6SMBJ120CA	EG	120.0	133	147.00	1	193.0	3.10	1.0
A6SMBJ130C	EH	130.0	144	176.00	1	231.0	2.60	1.0
A6SMBJ130CA	EK	130.0	144	159.00	1	209.0	2.90	1.0
A6SMBJ150C	EL	150.0	167	204.00	1	268.0	2.20	1.0
A6SMBJ150CA	EM	150.0	167	185.00	1	243.0	2.50	1.0
A6SMBJ160C	EN	160.0	178	218.00	1	287.0	2.10	1.0
A6SMBJ160CA	EP	160.0	178	197.00	1	259.0	2.30	1.0
A6SMBJ170C	EQ	170.0	189	231.00	1	304.0	2.00	1.0
A6SMBJ170CA	ER	170.0	189	209.00	1	275.0	2.2	1.0



品質承諾標誌
QUALITY COMMITMENT

SINLOON®

TVS 瞬態電壓抑制二極管
Voltage : 5.0V - 170V

A6SMBJ5.0 - A6SMBJ170CA
600W Surface Mount Transient Voltage Suppressor

Electrical Characteristics Curve

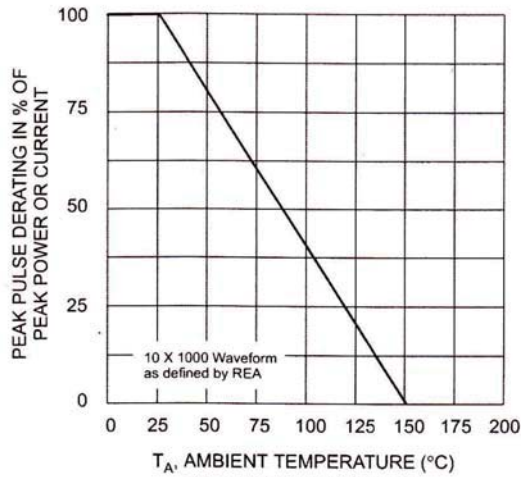


Fig. 1 Pulse Derating Curve

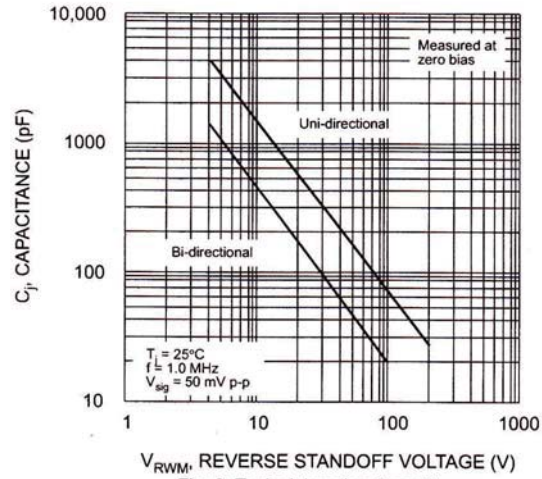


Fig. 2 Typical Junction Capacitance

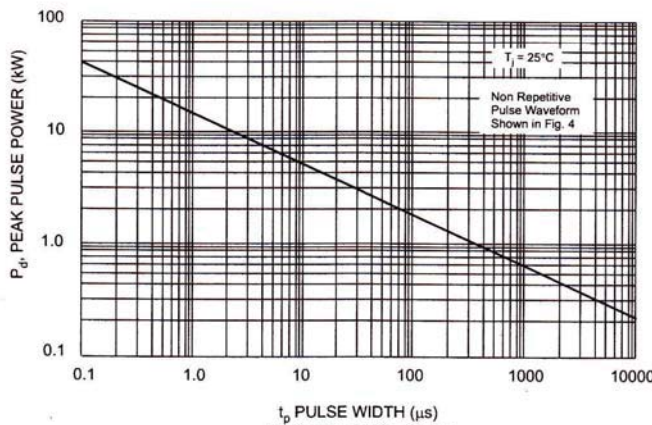


Fig. 3 Pulse Rating Curve

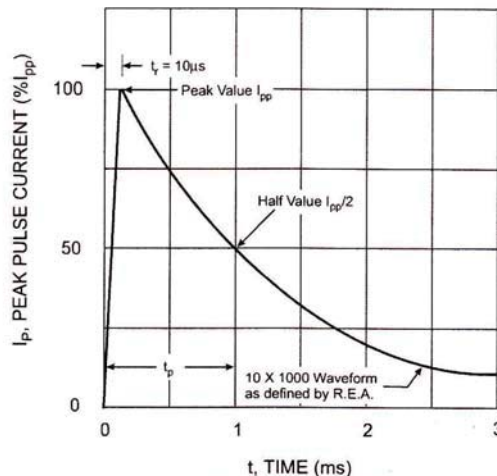


Fig. 4 Pulse Waveform



SINLOON®

TVS 瞬態電壓抑制二極管
Voltage : 5.0V - 170V

A6SMBJ5.0 - A6SMBJ170CA
600W Surface Mount Transient Voltage Suppressor

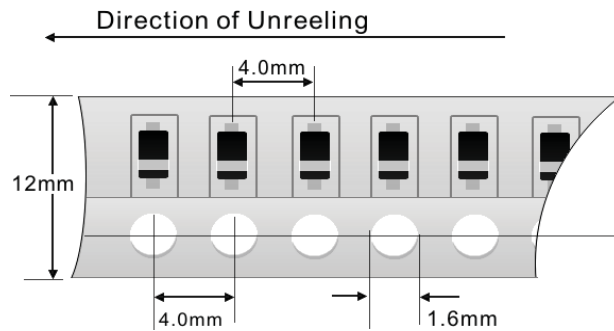
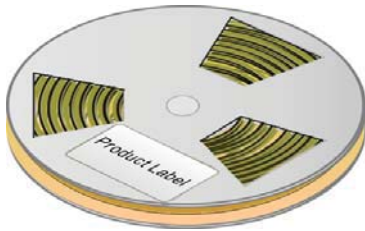
Packaging Information

Dimension Reel Tape	Quantity (Pcs)	Inner Box Size L x W x H	Quantity (Pcs)	Carton Size L x W x H	Quantity (Pcs)	Gross Weight
330 mm	3,000	340 x 337 x 45 mm	6,000	370 x 370 x 420 mm	48,000	14.0Kg

- Note:
1. Paper Reel, White or gray color.
 2. Components are packed in accordance with EIA standard 481- and 481-2
 3. Shipping quantity given is for minimum packing quantity only.
- For minimum order quantity, please consult the Sales Department.

Tape Reel

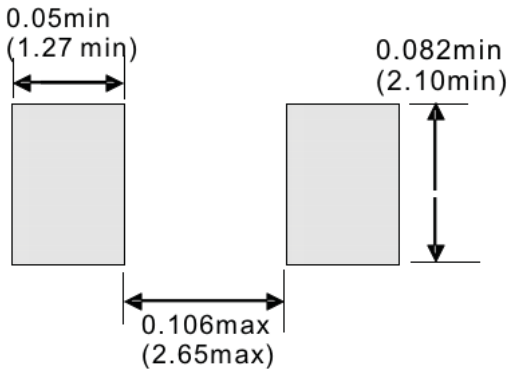
330 x 12mm



Carton:



Recommended Footprint



Marking Information



Cathode: Polarity Band Except Bi-Direction Type
XXX: Device Code see Marking Code.

※美隆公司產品規格及其特性參數的改變或更新恕不另行通知。
※Mayloon characteristic parameters of electronic product specification changes or updates without notice to improve

