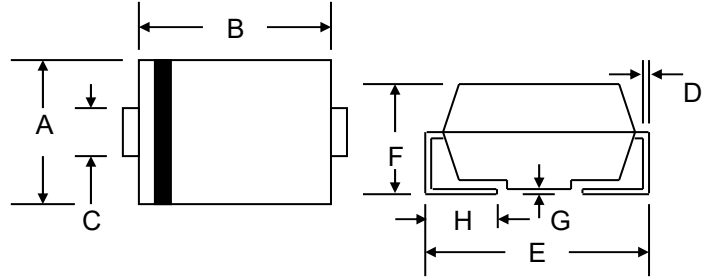


Features

- Glass Passivated Die Construction
- 600W Peak Pulse Power Dissipation
- 5.0V – 58V Standoff Voltage
- Uni- and Bi-Directional Versions Available
- Excellent Clamping Voltage
- Typical Response Time < 1nS
- Plastic Case Material has UL Flammability Classification Rating 94V-0



Mechanical Data

- Case: SMA/DO-214AC, Molded Plastic
- Terminals: Solder Plated, Solderable per MIL-STD-750, Method 2026
- Polarity: Cathode Band Except Bi-Directional
- Marking: Device Code
- Weight: 0.064 grams (approx.)
- **Lead Free: For RoHS / Lead Free Version, Add "-LF" Suffix to Part Number, See Page 5**

SMA/DO-214AC		
Dim	Min	Max
A	2.29	2.92
B	4.00	4.60
C	1.27	1.90
D	0.152	0.305
E	4.80	5.30
F	2.00	2.44
G	0.051	0.203
H	0.76	1.52
All Dimensions in mm		

Maximum Ratings and Electrical Characteristics @ $T_A=25^\circ\text{C}$ unless otherwise specified

Characteristic	Symbol	Value	Unit
Peak Pulse Power Dissipation on 10/1000 μS Waveform (Note 1, 2, 4)	PPPM	600	W
Peak Pulse Current on 10/1000 μS Waveform (Note 1)	IPPM	See Table 1	A
Peak Forward Surge Current (Note 2, 3)	IFSM	60	A
Maximum Instantaneous Forward Voltage at 25A (Note 3)	V _F	3.5	V
Power Dissipation on Infinite Heatsink at $T_A = 55^\circ\text{C}$	P _D	4.0	W
Typical Thermal Resistance, Junction to Ambient (Note 2)	R _{JA}	120	$^\circ\text{C/W}$
Typical Thermal Resistance, Junction to Lead (Note 2)	R _{JL}	30	$^\circ\text{C/W}$
Operating and Storage Temperature Range	T _J , T _{STG}	-55 to +150	$^\circ\text{C}$

- Note:
1. Non-repetitive current pulse per Figure 5 and derated above $T_A = 25^\circ\text{C}$ per Figure 1.
 2. Mounted on 5.0 x 5.0mm copper pads to each terminal.
 3. Measured on 8.3ms single half sine-wave, duty cycle = 4 pulses per minute maximum. For uni-directional devices only.
 4. Peak pulse power waveform is 10/1000 μS .

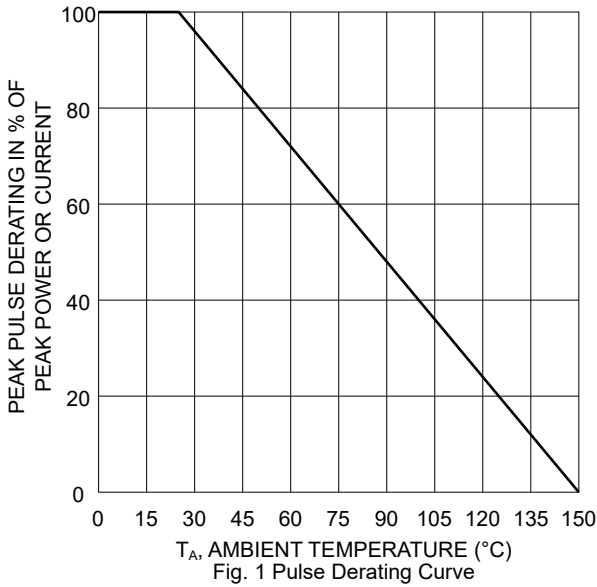


Fig. 1 Pulse Derating Curve

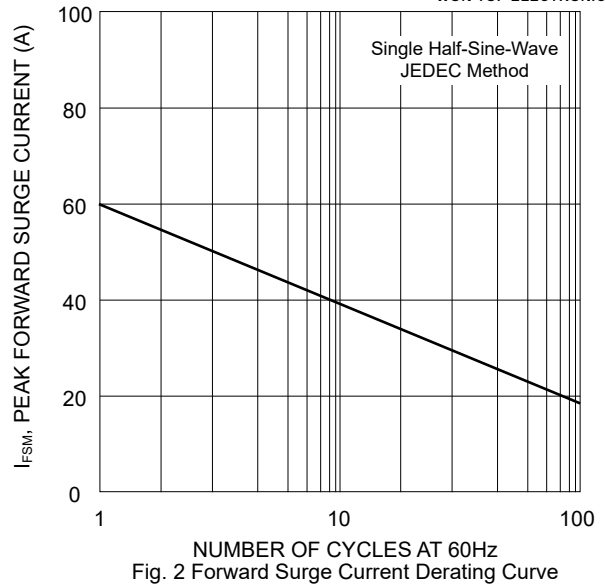


Fig. 2 Forward Surge Current Derating Curve

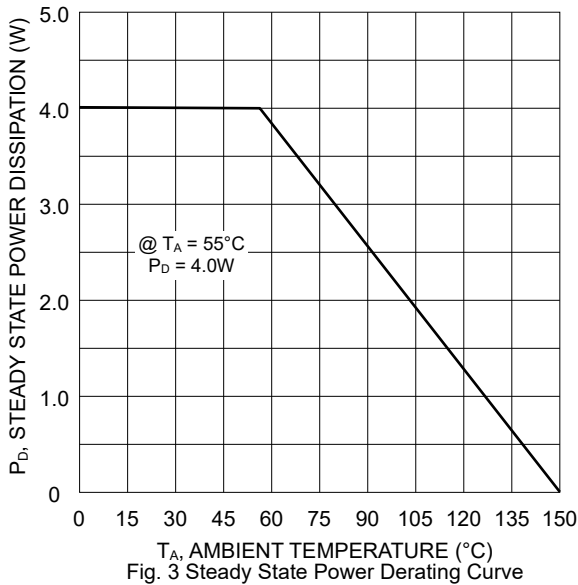


Fig. 3 Steady State Power Derating Curve

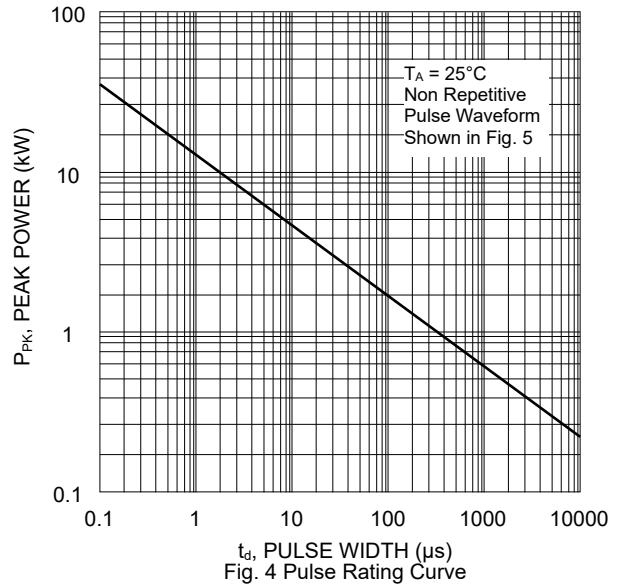


Fig. 4 Pulse Rating Curve

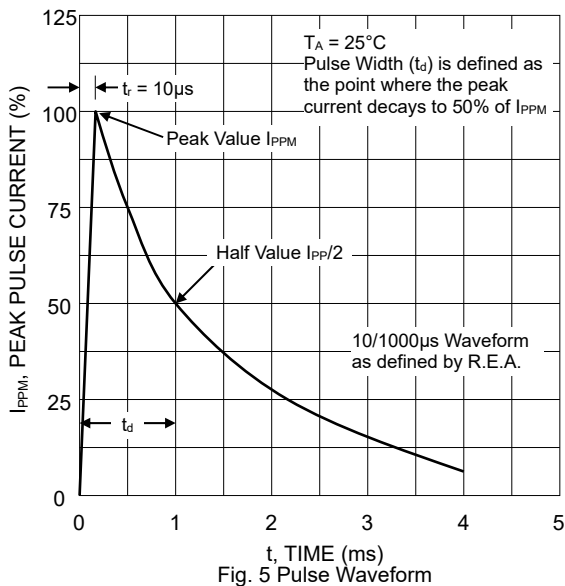


Fig. 5 Pulse Waveform

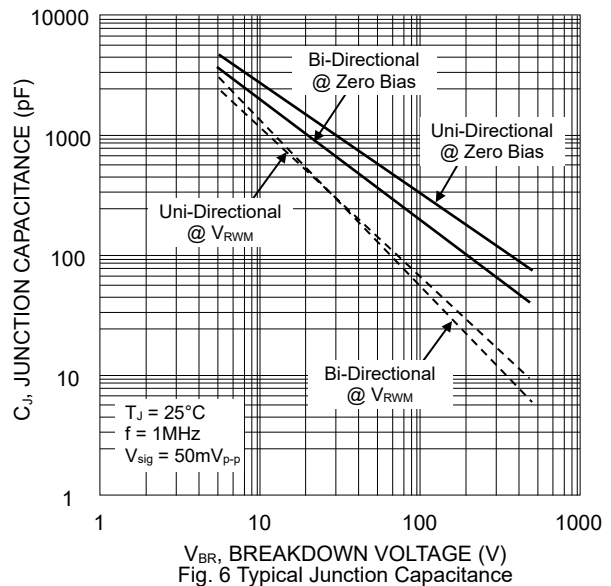


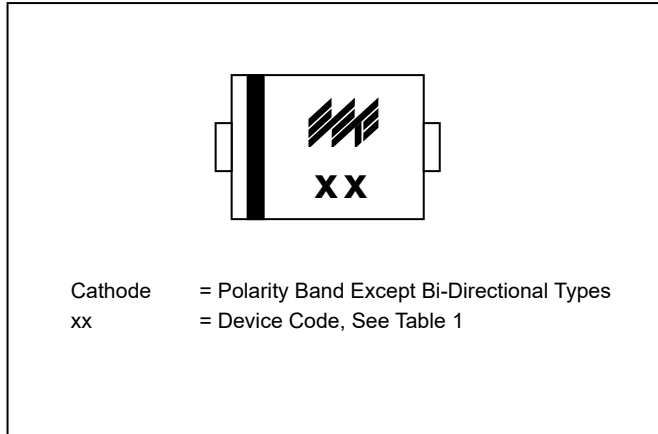
Fig. 6 Typical Junction Capacitance

Electrical Characteristics (@T_A=25°C unless otherwise specified) Table 1

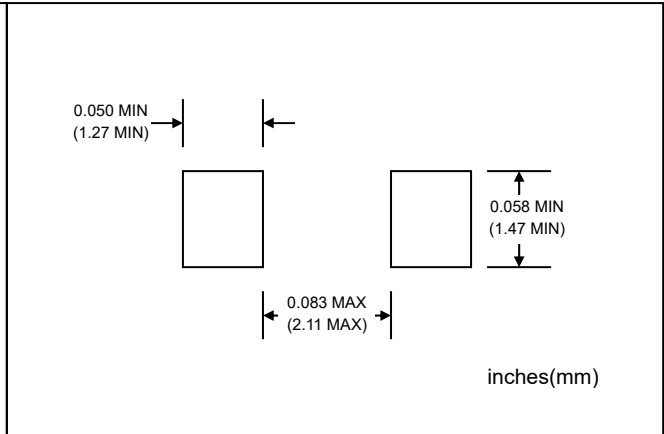
Uni-Directional Part No.	Bi-Directional Part No.	Device Marking Code		Reverse Stand-Off Voltage V _{RWM} (V)	Breakdown Voltage V _{BR} (V) @I _T		Test Current I _T (mA)	Maximum Clamping Voltage @I _{PP} V _C (V)	Peak Pulse Current I _{PP} (A)	Reverse Leakage* @V _{RWM} I _R (μA)
		UNI	BI		Min.	Max.				
SMA6J5.0A	SMA6J5.0CA	KE	AE	5.0	6.40	7.00	10	9.2	65.20	800
SMA6J6.0A	SMA6J6.0CA	KG	AG	6.0	6.67	7.37	10	10.3	58.30	800
SMA6J6.5A	SMA6J6.5CA	KK	AK	6.5	7.22	7.98	10	11.2	53.60	500
SMA6J7.0A	SMA6J7.0CA	KM	AM	7.0	7.78	8.60	10	12.0	50.00	200
SMA6J7.5A	SMA6J7.5CA	KP	AP	7.5	8.33	9.21	1	12.9	46.50	100
SMA6J8.0A	SMA6J8.0CA	KR	AR	8.0	8.89	9.83	1	13.6	44.10	50
SMA6J8.5A	SMA6J8.5CA	KT	AT	8.5	9.44	10.40	1	14.4	41.70	10
SMA6J9.0A	SMA6J9.0CA	KV	AV	9.0	10.00	11.10	1	15.4	39.00	5.0
SMA6J10A	SMA6J10CA	KX	AX	10.0	11.10	12.30	1	17.0	35.30	1.0
SMA6J11A	SMA6J11CA	KZ	AZ	11.0	12.20	13.50	1	18.2	33.00	1.0
SMA6J12A	SMA6J12CA	LE	BE	12.0	13.30	14.70	1	19.9	30.20	1.0
SMA6J13A	SMA6J13CA	LG	BG	13.0	14.40	15.90	1	21.5	27.90	1.0
SMA6J14A	SMA6J14CA	LK	BK	14.0	15.60	17.20	1	23.2	25.90	1.0
SMA6J15A	SMA6J15CA	LM	BM	15.0	16.70	18.50	1	24.4	24.60	1.0
SMA6J16A	SMA6J16CA	LP	BP	16.0	17.80	19.70	1	26.0	23.10	1.0
SMA6J17A	SMA6J17CA	LR	BR	17.0	18.90	20.90	1	27.6	21.70	1.0
SMA6J18A	SMA6J18CA	LT	BT	18.0	20.00	22.10	1	29.2	20.50	1.0
SMA6J19A	SMA6J19CA	LB	BB	19.0	21.10	23.30	1	30.8	19.50	1.0
SMA6J20A	SMA6J20CA	LV	BV	20.0	22.20	24.50	1	32.4	18.50	1.0
SMA6J22A	SMA6J22CA	LX	BX	22.0	24.40	26.90	1	35.5	16.90	1.0
SMA6J24A	SMA6J24CA	LZ	BZ	24.0	26.70	29.50	1	38.9	15.40	1.0
SMA6J26A	SMA6J26CA	ME	CE	26.0	28.90	31.90	1	42.1	14.30	1.0
SMA6J28A	SMA6J28CA	MG	CG	28.0	31.10	34.40	1	45.4	13.20	1.0
SMA6J30A	SMA6J30CA	MK	CK	30.0	33.30	36.80	1	48.4	12.40	1.0
SMA6J33A	SMA6J33CA	MM	CM	33.0	36.70	40.60	1	53.3	11.30	1.0
SMA6J36A	SMA6J36CA	MP	CP	36.0	40.00	44.20	1	58.1	10.30	1.0
SMA6J40A	SMA6J40CA	MR	CR	40.0	44.40	49.10	1	64.5	9.30	1.0
SMA6J43A	SMA6J43CA	MT	CT	43.0	47.80	52.80	1	69.4	8.65	1.0
SMA6J45A	SMA6J45CA	MV	CV	45.0	50.00	55.30	1	72.7	8.25	1.0
SMA6J48A	SMA6J48CA	MX	CX	48.0	53.30	58.90	1	77.4	7.75	1.0
SMA6J51A	SMA6J51CA	MZ	CZ	51.0	56.70	62.70	1	82.4	7.28	1.0
SMA6J54A	SMA6J54CA	NE	DE	54.0	60.00	66.30	1	87.1	6.89	1.0
SMA6J58A	SMA6J58CA	NG	DG	58.0	64.40	71.20	1	93.6	6.41	1.0

*For bi-directional devices V_{RWM} ≤ 10V, the I_R limit is double.

MARKING INFORMATION

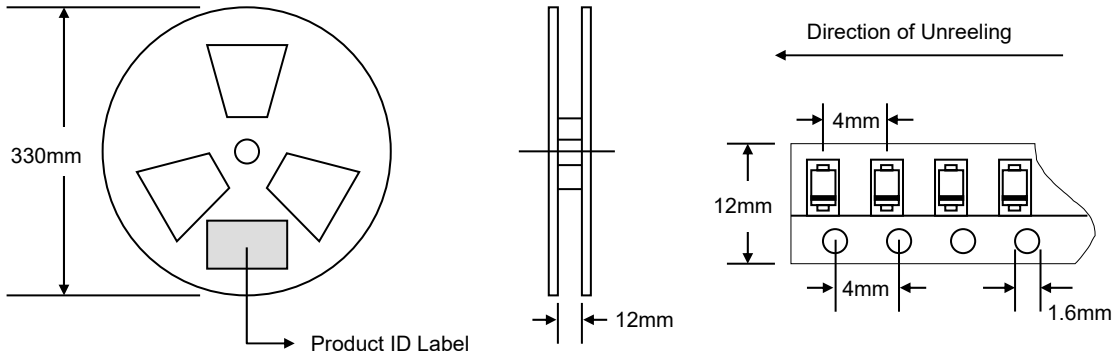


RECOMMENDED FOOTPRINT



PACKING INFORMATION

TAPE & REEL




Reel Diameter (mm)	Quantity (PCS)	Inner Box Size L x W x H (mm)	Quantity (PCS)	Carton Size L x W x H (mm)	Quantity (PCS)	Approx. Gross Weight (KG)
330	5,000	340 x 337 x 45	10,000	370 x 370 x 420	80,000	14.0

Note: 1. Paper reel, white or gray color.
2. Components are packed in accordance with EIA standard 481-1 and 481-2.

ORDERING INFORMATION

Product No.	Package Type	Shipping Quantity
SMA6Jxx-T3	SMA	5000/Tape & Reel

1. Shipping quantity given is for minimum packing quantity only. For minimum order quantity, please consult the Sales Department.
2. **To order RoHS / Lead Free version (with Lead Free finish), add "-LF" suffix to part number above. For example, SMA6J5.0A-T3-LF.**

WON-TOP ELECTRONICS and  are registered trademarks of Won-Top Electronics Co., Ltd (WTE). WTE has checked all information carefully and believes it to be correct and accurate. However, WTE cannot assume any responsibility for inaccuracies. Furthermore, this information does not give the purchaser of semiconductor devices any license under patent rights to manufacturer. WTE reserves the right to change any or all information herein without further notice.

WARNING: DO NOT USE IN LIFE SUPPORT EQUIPMENT. WTE power semiconductor products are not authorized for use as critical components in life support devices or systems without the express written approval.

Won-Top Electronics Co., Ltd.
No. 44 Yu Kang North 3rd Road,
Chine Chen Dist., Kaohsiung 806, Taiwan
Phone: 886-7-822-5408 or 886-7-822-5410
Fax: 886-7-822-5417
Email: sales@wontop.com
Internet: http://www.wontop.com

We power your everyday.