

SURFACE MOUNT UNIDIRECTIONAL AND BIDIRECTIONAL TRANSIENT VOLTAGE SUPPRESSORS	STAND-OFF VOLTAGE - 5.0 to 188 Volts POWER DISSIPATION - 600 Watts
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FEATURES

- For surface mounted applications
- Reliable low cost construction utilizing molded plastic technique
- Typical IR less than 1uA above 10V
- Fast response time: typically less than 1.0ns for Uni-direction, less than 5.0ns for Bi-direction, from 0 Volts to BV min
- RoHS compliant
- IEC61000-4-2, >±30KV(air); >±30KV(Contact).(Note.5)

MECHANICAL DATA

- Case : Molded plastic
- Case Material: Molding compound, UL Flammability classification 94V-0, (No Br. Sb. Cl.) "Halogen-free".
- Polarity : by cathode band denotes uni-directional device none cathode band denotes bi-directional device

SMA

SMA		
DIM.	MIN.	MAX.
A	4.06	4.57
B	2.29	2.92
C	1.27	1.63
D	0.15	0.31
E	4.83	5.59
F	0.05	0.20
G	1.96	2.40
H	0.76	1.52

All Dimensions in millimeter

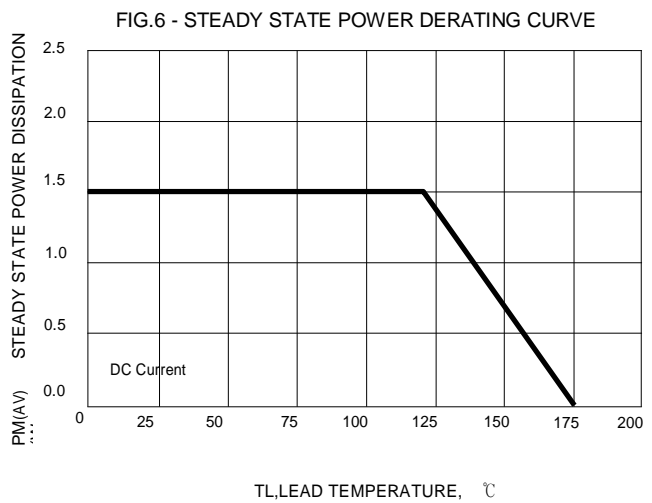
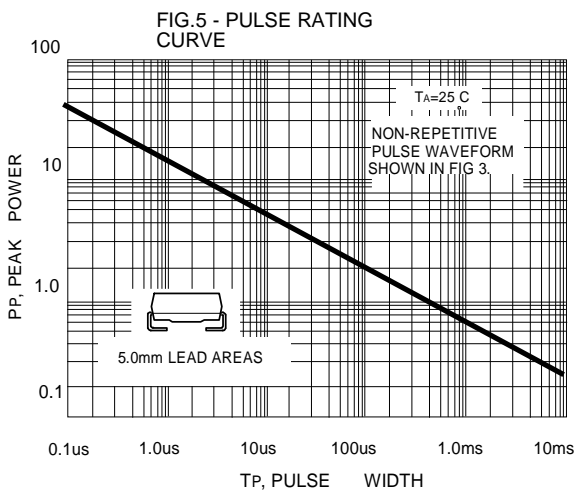
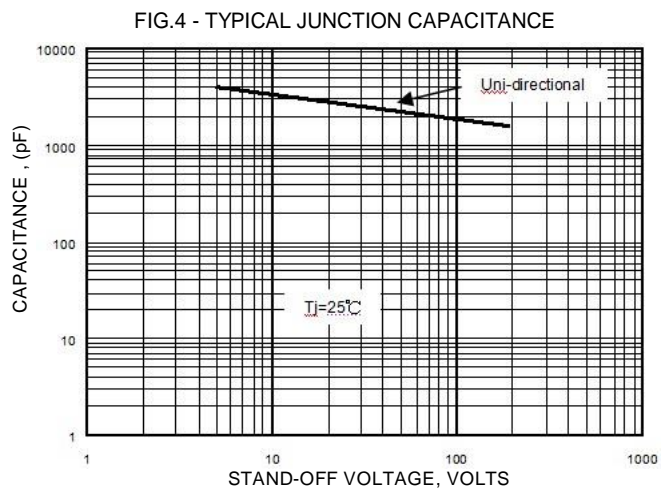
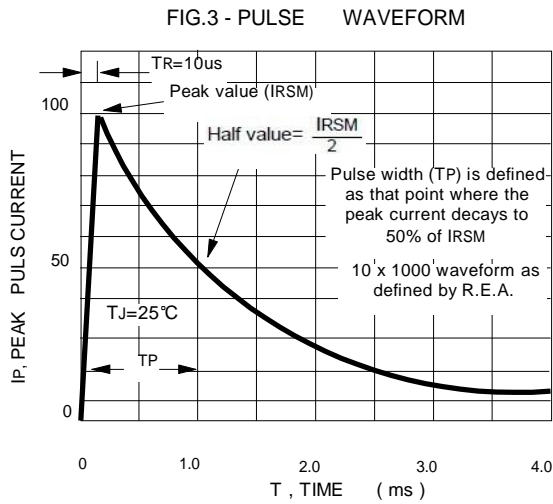
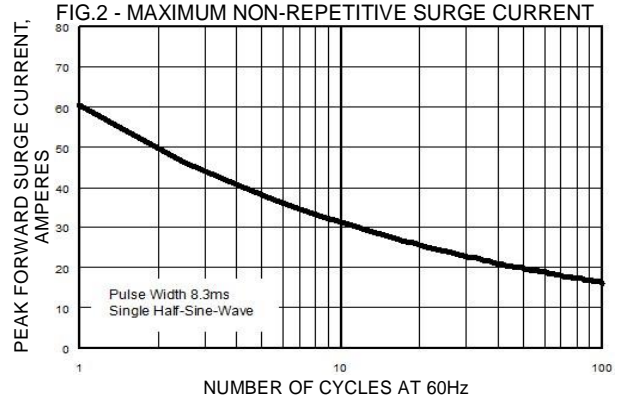
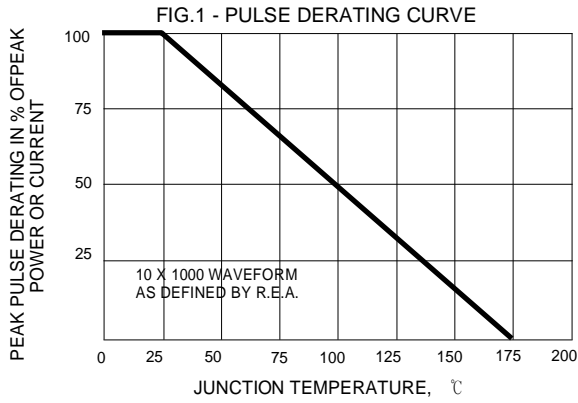
MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS
 Ratings at 25°C ambient temperature unless otherwise specified.

CHARACTERISTICS	SYMBOLS	VALUE	UNIT
Peak Power Dissipation at T _J = 25°C , TP = 1ms (Note 1)	P _{PK}	600	WATTS
Peak Forward Surge Current 8.3ms single half sine-wave at T _J = 25°C (Note 2)	I _{FSM}	60	AMPS.
Steady State Power Dissipation at T _L =120°C	P _{M(AV)}	1.5	WATTS
Maximum Instantaneous forward voltage at 16A (Note 2, 3)	V _F	SEE NOTE 3	Volts
Typical Thermal Resistance (Note 4)	R _{thJA}	75	°C /W
	R _{thJL}	25	
	R _{thJC}	15	
Operating Temperature Range	T _J	-55 to +175	°C
Storage Temperature Range	T _{STG}	-55 to +175	°C

NOTES : 1. Non-repetitive current pulse, per fig. 3 and derated above T_J= 25°C per fig.1.
 2. Only for unidirectional units.
 3. V_F max=2.5V at I_F=16 A 300us square wave pulse.
 4. Thermal resistance from junction to ambient, lead and case.
 5. SMA6J5.0-T thru SMA6J120-T devices that comply IEC 61000-4-2 levels.

REV. 2, APR-2020, KSIA12

Please be aware that an **Important Notice and Disclaimer** concerning availability, disclaimers, and use in Critical applications of LSC products thereto appears at the end of this Data Sheet.



Device Uni-Directional	Device Bi-Directional	Device marking code		Reverse stand-off voltage V_R (V)	Breakdown voltage V_{BR} Volts			Max. clamping voltage @Ipp V_C (V)	Max. peak pulse current Ipp (A)	Max. reverse leakage @ V_R I_R (uA)
		(UNI)	(BI)		Min.	Max	@It (mA)			
SMA6J5.0AT	SMA6J5.0CAT	KET	AET	5.0	6.40	7.07	10	9.2	65.2	800
SMA6J5.0LT	---	KETL	---	5.0	6.40	7.07	10	9.2	65.2	15
SMA6J6.0AT	SMA6J6.0CAT	KGT	AGT	6.0	6.67	7.37	10	10.3	58.3	800
SMA6J6.5AT	SMA6J6.5CAT	KKT	AKT	6.5	7.22	7.98	10	11.2	53.6	500
SMA6J7.0AT	SMA6J7.0CAT	KMT	AMT	7.0	7.78	8.60	10	12.0	50.0	200
SMA6J7.5AT	SMA6J7.5CAT	KPT	APT	7.5	8.33	9.21	1.0	12.9	46.5	100
SMA6J8.0AT	SMA6J8.0CAT	KRT	ART	8.0	8.89	9.83	1.0	13.6	44.1	50
SMA6J8.5AT	SMA6J8.5CAT	KTT	ATT	8.5	9.44	10.4	1.0	14.4	41.7	20
SMA6J9.0AT	SMA6J9.0CAT	KVT	AVT	9.0	10.0	11.1	1.0	15.4	39.0	10
SMA6J10AT	SMA6J10CAT	KXT	AXT	10.0	11.1	12.3	1.0	17.0	35.3	5.0
SMA6J11AT	SMA6J11CAT	KZT	AZT	11.0	12.2	13.5	1.0	18.2	33.0	0.5
SMA6J12AT	SMA6J12CAT	LET	BET	12.0	13.3	14.7	1.0	19.9	30.2	0.5
SMA6J13AT	SMA6J13CAT	LGT	BGT	13.0	14.4	15.9	1.0	21.5	27.9	0.5
SMA6J14AT	SMA6J14CAT	LKT	BKT	14.0	15.6	17.2	1.0	23.2	25.8	0.5
SMA6J15AT	SMA6J15CAT	LMT	BMT	15.0	16.7	18.5	1.0	24.4	24.0	0.5
SMA6J16AT	SMA6J16CAT	LPT	BPT	16.0	17.8	19.7	1.0	26.0	23.1	0.5
SMA6J17AT	SMA6J17CAT	LRT	BRT	17.0	18.9	20.9	1.0	27.6	21.7	0.5
SMA6J18AT	SMA6J18CAT	LTT	BTT	18.0	20.0	22.1	1.0	29.2	20.5	0.5
SMA6J20AT	SMA6J20CAT	LVT	BVT	20.0	22.2	24.5	1.0	32.4	18.5	0.5
SMA6J22AT	SMA6J22CAT	LXT	BXT	22.0	24.4	27.0	1.0	35.5	16.9	0.5
SMA6J24AT	SMA6J24CAT	LZT	BZT	24.0	26.7	29.5	1.0	38.9	15.4	0.5
SMA6J26AT	SMA6J26CAT	MET	CET	26.0	28.9	31.9	1.0	42.1	14.2	0.5
SMA6J28AT	SMA6J28CAT	MGT	CGT	28.0	31.1	34.4	1.0	45.4	13.2	0.5
SMA6J30AT	SMA6J30CAT	MKT	CKT	30.0	33.3	36.8	1.0	48.4	12.4	0.5
SMA6J33AT	SMA6J33CAT	MMT	CMT	33.0	36.7	40.6	1.0	53.3	11.3	0.5
SMA6J36AT	SMA6J36CAT	MPT	CPT	36.0	40.0	44.2	1.0	58.1	10.3	0.5
SMA6J40AT	SMA6J40CAT	MRT	CRT	40.0	44.4	49.1	1.0	64.5	9.3	0.5
SMA6J43AT	SMA6J43CAT	MTT	CTT	43.0	47.8	52.8	1.0	69.4	8.6	0.5
SMA6J45AT	SMA6J45CAT	MVT	CVT	45.0	50.0	55.3	1.0	72.7	8.3	0.5
SMA6J48AT	SMA6J48CAT	MXT	CXT	48.0	53.3	58.9	1.0	77.4	7.7	0.5
SMA6J51AT	SMA6J51CAT	MZT	CZT	51.0	56.7	62.7	1.0	82.4	7.3	0.5
SMA6J54AT	SMA6J54CAT	NET	DET	54.0	60.0	66.3	1.0	87.1	6.9	0.5
SMA6J58AT	SMA6J58CAT	NGT	DGT	58.0	64.4	71.2	1.0	93.6	6.4	0.5
SMA6J60AT	SMA6J60CAT	NKT	DKT	60.0	66.7	73.7	1.0	96.8	6.2	0.5
SMA6J64AT	SMA6J64CAT	NMT	DMT	64.0	71.1	78.6	1.0	103	5.8	0.5
SMA6J70AT	SMA6J70CAT	NPT	DPT	70.0	77.8	86.0	1.0	113	5.3	0.5
SMA6J75AT	SMA6J75CAT	NRT	DRT	75.0	83.3	92.1	1.0	121	4.9	0.5
SMA6J78AT	SMA6J78CAT	NTT	DTT	78.0	86.7	95.8	1.0	126	4.7	0.5
SMA6J85AT	SMA6J85CAT	NVT	DVT	85.0	94.4	104	1.0	137	4.4	0.5
SMA6J90AT	SMA6J90CAT	NXT	DXT	90.0	100	111	1.0	146	4.1	0.5
SMA6J100AT	SMA6J100CAT	NZT	DZT	100.0	111	123	1.0	162	3.7	0.5

Device Uni-directional	Device Bi-directional	Device marking code		Reverse stand-off voltage VR (V)	Breakdown voltage VBR volts			Max. clamping voltage @Ipp Vc (V)	Max. peak pulse current Ipp (A)	Max. reverse leakage @ VR IR (uA)
		(UNI)	(BI)		Min.	Max	@It (mA)			
SMA6J110AT	SMA6J110CAT	PET	EET	110.0	122	135	1.0	177	3.4	0.5
SMA6J120AT	SMA6J120CAT	PGT	EGT	120.0	133	147	1.0	193	3.1	0.5
SMA6J130AT	SMA6J130CAT	PKT	EKT	130.0	144	159	1.0	209	2.9	0.5
SMA6J150AT	SMA6J150CAT	PMT	EMT	150.0	167	185	1.0	243	2.5	0.5
SMA6J160AT	SMA6J160CAT	PPT	EPT	160.0	178	197	1.0	259	2.3	0.5
SMA6J170AT	SMA6J170CAT	PRT	ERT	170.0	189	209	1.0	275	2.2	0.5
SMA6J188AT	SMA6J188CAT	PTT	ETT	188.0	209	231	1.0	328	1.83	0.5

NOTE :

- 1) Suffix 'AT' denotes 5% tolerance device, no suffix denotes 10% tolerance device.
- 2) Add suffix 'CT' or 'CAT' after part number to specify Bi-directional devices.
- 3) The IR limit is double for Bi-Directional devices.

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