LITE-ON SEMICONDUCTOR

ASMA6J SERIES

SURFACE MOUNT
UNIDIRECTIONAL AND BIDIRECTIONAL
TRANSIENT VOLTAGE SUPPRESSORS

STAND-OFF VOLTAGE - **5.0** to **75** Volts
POWER DISSIPATION - **600** WATTS

FEATURES

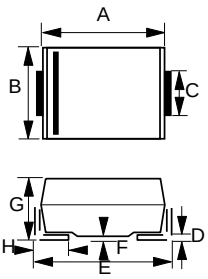
AUTOMOTIVE

- 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,form 0 Volts to BV min
- RoHS compliant
- AEC-Q101 qualified
- PPAP capable

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℃ ambient temperature unless otherwise specified.

CHARACTERISTICS	SYMBOLS	VALUE	UNIT
PEAK POWER DISSIPATION AT T_J = 25℃, TP = 1ms (Note 1)	P_{PK}	600	WATTS
Peak Forward Surge Current 8.3ms single half sine-wave @ TJ = 25 ℃ (Note 2)	I_{FSM}	60	AMPS.
Steady State Power Dissipation with PCB	$P_{M(AV)}$	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} R_{thJL} R_{thJC}	75 25 15	℃/W
Operating Temperature Range	T_J	-55 to +175	℃
Storage Temperature Range	T_{STG}	-55 to +175	℃

REV. 0, Oct-2018, KSIA11

NOTES : 1. Non-repetitive current pulse, per fig. 3 and derated above T_J= 25℃ per fig.1.
2. Only for unidirectional units.
3. VF max=2.5V at IF=16 A 300us square wave pulse.
4. Thermal resistance from junction to ambient, lead and case.

FIG.1 - PULSE DERATING CURVE

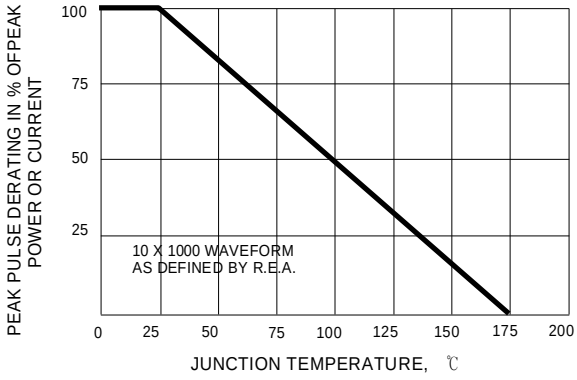


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

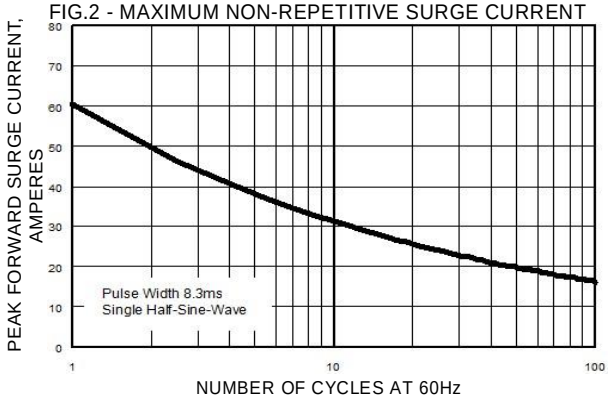


FIG.3 - PULSE WAVEFORM

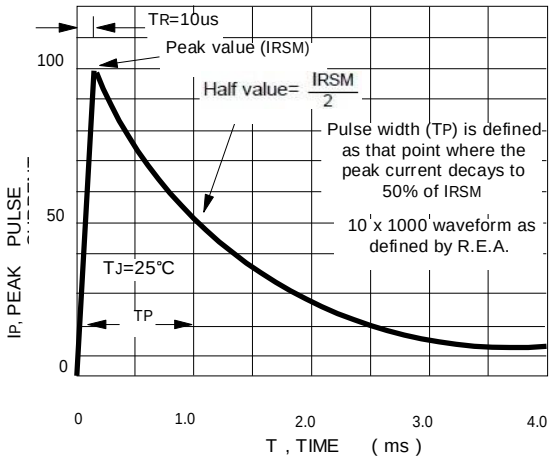


FIG.4 - TYPICAL JUNCTION CAPACITANCE

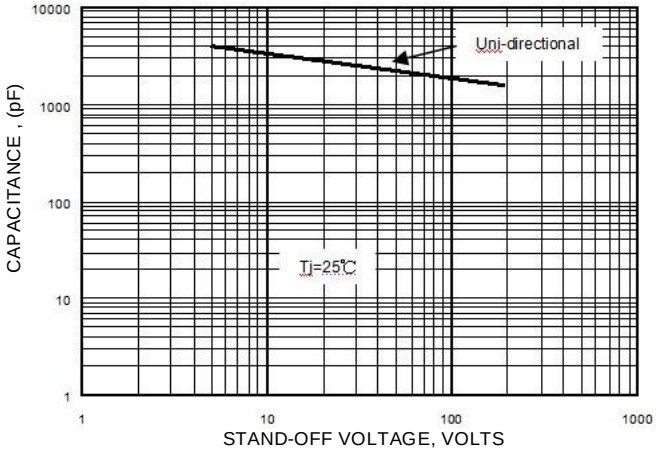


FIG.5 - PULSE RATING CURVE

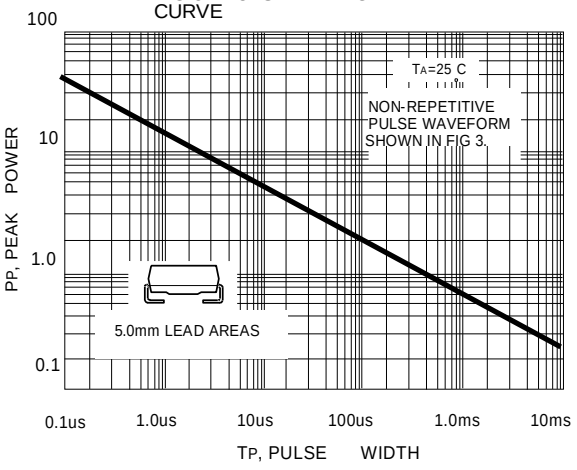
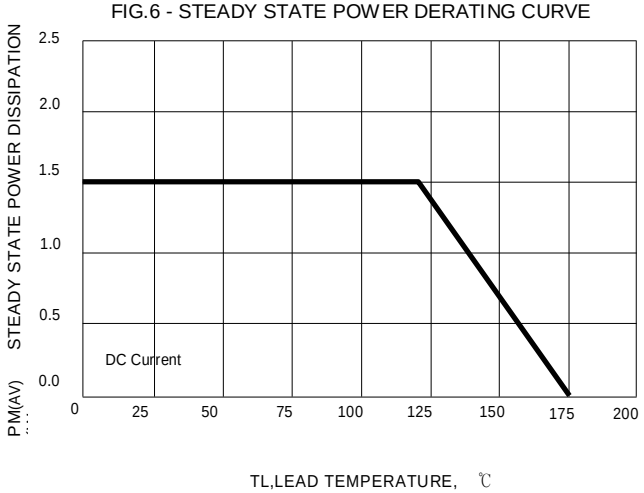


FIG.6 - STEADY STATE POWER DERATING CURVE



LITE ON **LITE-ON SEMICONDUCTOR**

Device Uni- Directional	Device Bi- Directional	Device Marking Code		Reverse Standoff Voltage	Breakdown Voltage VBR Volts			Max. Clamping Voltage @Ipp	Max. Peak Pulse Current	Max. Reverse Leakage @ VR
		(UNI)	(BI)	VR (V)	Min.	Max.	@It (mA)	VC (V)	IPP (A)	IR (uA)
ASMA6J5.0A		AOE		5.0	6.40	7.07	10	9.1	68.0	100.0
ASMA6J6.0A		AOG		6.0	6.70	7.41	10	9.5	61	100.0
ASMA6J6.5A		AOK		6.5	7.20	7.96	10	11.2	53.6	100.0
ASMA6J7.0A		AOM		7.0	7.78	8.60	10	12.0	50.0	20.0
ASMA6J7.5A		AOP		7.5	8.33	9.21	1.0	12.9	46.5	20.0
ASMA6J8.0A		AOR		8.0	8.89	9.83	1.0	13.6	44.1	20.0
ASMA6J8.5A		AOT		8.5	9.4	10.4	1.0	13.3	41.7	20.0
ASMA6J9.0A		AOV		9.0	10.0	11.1	1.0	15.4	39.0	20.0
ASMA6J10A	ASMA6J10CA	ASX	AJX	10.0	11.1	12.3	1.0	15.7	37	0.2
ASMA6J11A	ASMA6J11CA	ASZ	AJZ	11.0	12.2	13.5	1.0	18.2	33.0	0.2
ASMA6J12A	ASMA6J12CA	ASE	AJE	12.0	13.3	14.7	1.0	18.8	31.0	0.2
ASMA6J13A	ASMA6J13CA	ASG	AJG	13.0	14.4	15.9	1.0	20.4	29.0	0.2
ASMA6J14A	ASMA6J14CA	ASK	AJK	14.0	15.6	17.2	1.0	23.2	25.8	0.2
ASMA6J15A	ASMA6J15CA	ASM	AJM	15.0	16.7	18.5	1.0	23.6	25.1	0.2
ASMA6J16A	ASMA6J16CA	ASD	AJP	16.0	17.8	19.7	1.0	26.0	23.1	0.2
ASMA6J17A	ASMA6J17CA	ASN	AJR	17.0	18.9	20.9	1.0	27.6	21.7	0.2
ASMA6J18A	ASMA6J18CA	ASK	AJT	18.0	20.0	22.1	1.0	28.3	21.5	0.2
ASMA6J20A	ASMA6J20CA	AQV	AKV	20.0	22.2	24.5	1.0	31.4	19.4	0.2
ASMA6J22A	ASMA6J22CA	AQX	AKX	22.0	24.4	27.0	1.0	35.5	16.9	0.2
ASMA6J24A	ASMA6J24CA	AQZ	AKZ	24.0	26.7	29.5	1.0	37.8	16.0	0.2
ASMA6J26A	ASMA6J26CA	AQE	AKE	26.0	28.9	31.9	1.0	40.9	14.9	0.2
ASMA6J28A	ASMA6J28CA	AQG	AKG	28.0	31.1	34.4	1.0	44.0	13.8	0.2
ASMA6J30A	ASMA6J30CA	AQK	AKK	30.0	33.3	36.8	1.0	48.4	12.4	0.2
ASMA6J33A	ASMA6J33CA	AQM	AKM	33.0	36.7	40.6	1.0	51.9	11.8	0.2
ASMA6J36A	ASMA6J36CA	AQP	AKP	36.0	40.0	44.2	1.0	58.1	10.3	0.2
ASMA6J40A	ASMA6J40CA	ASR	ANR	40.0	44.4	49.1	1.0	62.8	9.7	0.2
ASMA6J43A	ASMA6J43CA	AST	ANT	43.0	47.8	52.8	1.0	69.4	8.6	0.2
ASMA6J45A	ASMA6J45CA	ASV	ANV	45.0	50.0	55.3	1.0	72.7	8.3	0.2
ASMA6J48A	ASMA6J48CA	ASX	ANX	48.0	53.3	58.9	1.0	75.4	8.1	0.2
ASMA6J51A	ASMA6J51CA	AFZ	ANZ	51.0	56.7	62.7	1.0	82.4	7.3	0.2
ASMA6J54A	ASMA6J54CA	AFC	ANE	54.0	60.0	66.3	1.0	87.1	6.9	0.2
ASMA6J58A	ASMA6J58CA	ASG	ALG	58.0	64.4	71.2	1.0	91.1	6.7	0.2
ASMA6J60A	ASMA6J60CA	ASK	ALK	60.0	66.7	73.7	1.0	96.8	6.2	0.2
ASMA6J64A	ASMA6J64CA	ASM	ALM	64.0	71.1	78.6	1.0	103	5.8	0.2
ASMA6J70A	ASMA6J70CA	ASP	ALP	70.0	77.8	86.0	1.0	110	5.5	0.2
ASMA6J75A	ASMA6J75CA	ASR	ALR	75.0	83.3	92.1	1.0	121	4.9	0.2

NOTE :

1) Suffix 'A ' denotes 5% tolerance device,no suffix denotes 10 % tolerance device.
2) Add suffix 'C 'or ' CA ' after part number to specify Bi-directional devices.
3) The IR limit is double for Bi-Directional devices.
4).Only Uni-directional type of 10 V and less.

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