LITE-ON SEMICONDUCTOR

LT4ME SERIES

SURFACE MOUNT UNIDIRECTIONAL AND BIDIRECTIONAL TRANSIENT VOLTAGE SUPPRESSORS

STAND-OFF VOLTAGE - 5.0 TO 200 V
POWER DISSIPATION - 400 W

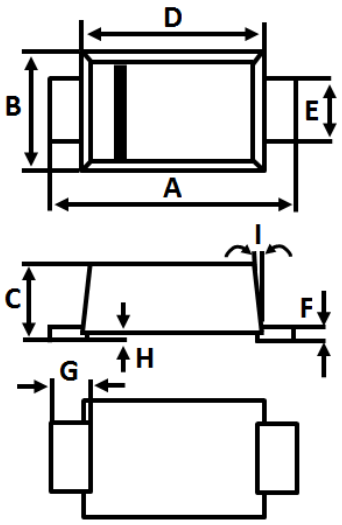
FEATURES

- 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, form 0 volts to BV min.
- RoHS compliant.
- Qualified to ACE-Q101 Rev_C
- IEC 61000-4-2 (ESD), > ±30KV (air) ; > ±30KV (contact) (Note 4)

MECHANICAL DATA

- Case material: “Green” 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.
- Wight: 0.002 ounces, 0.0165 gram

DO-219



DO-219			
DIM.	MIN.	TYP.	MAX
A	3.5	3.80	3.90
B	1.7	1.90	2.00
C	0.81	1.18	1.20
D	2.70	2.80	2.90
E	0.80	1.00	1.35
F	0.05	0.15	0.30
G	0.35	0.60.	0.85
H	0.03	0.07	0.10
I	0°	5°	8°
All Dimensions in millimeter			

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%

ABSOLUTE RATINGS

PARAMETER	SYMBOL	VALUE	UNIT
Peak power dissipation @ T_A = 25°C, TP = 1ms (Note 1)	P_{PP}	400	W
Peak forward surge current 8.3ms single half sine-wave @ T_J = 25°C(Note 2)	I_{FSM}	40	A
Steady state power dissipation @ T_L = 156°C	$P_{M(AV)}$	1.0	W
Maximum instantaneous forward voltage at 16A for unidirectional device only (Note 3)	V_F	3	V
Typical thermal resistance (Note 5)	R_{thJA} R_{thJL} R_{thJC}	96 14 18	°C/W
Operating junction 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_A=25°C. per fig. 1.
2. Only for unidirectional units.
3. V_F max = 3V at I_F = 16A 300us square wave pulse.
4. LT4ME5.0 thru LT4ME120 devices that comply IEC 61000-4-2 levels.
5. Thermal resistance from junction to ambient, lead and case.

REV.8, MAY-2019, KSIF82

RATING AND CHARACTERISTIC CURVES
LT4ME SERIES

FIG.1- pulse derating curve

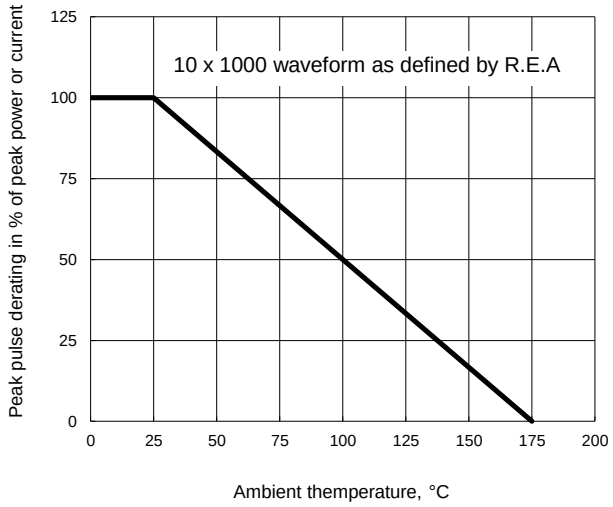


FIG.2- steady state power derating curve

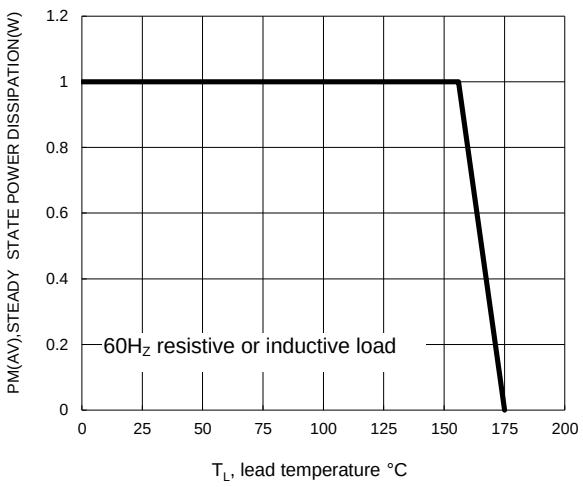


FIG3- pulse rating curve

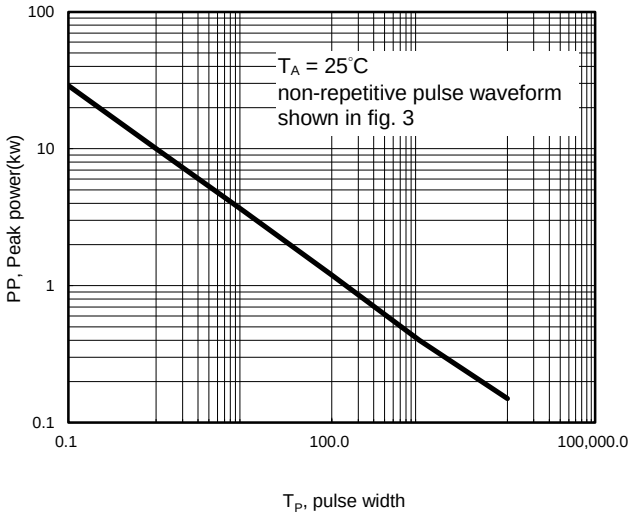


FIG4- typical junction capacitance

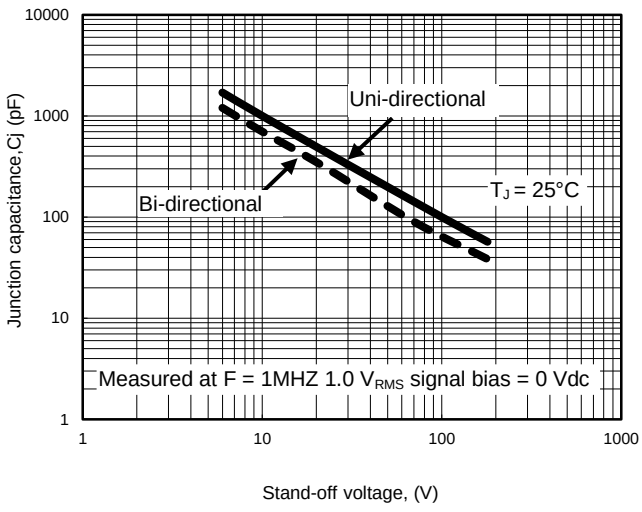
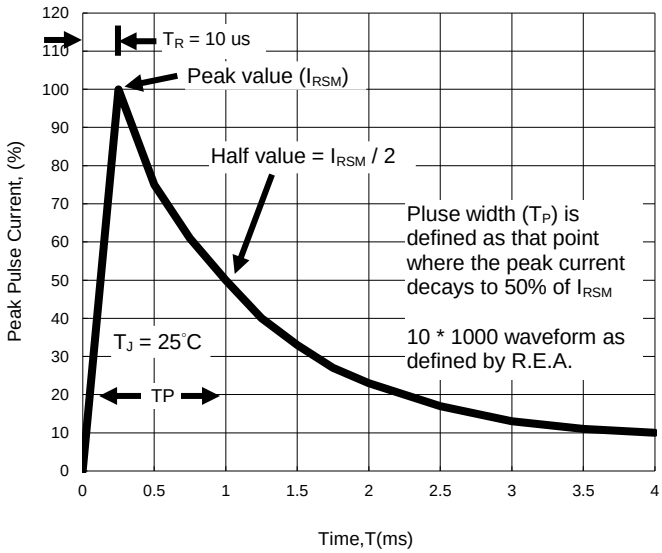


FIG.5- Pulse waveform



LT4ME SERIES

Type Number		Device Marking code		Working PeakReverse Voltage	Breakdown voltage VBR Volts			Maximum Reverse Voltage at IRSM (Clamping Voltage)	Maximum Reverse Surge Current	Maximum Reverse Leakage at VRWM
Uni	Bi	Uni	Bi	V_{RWM}(Volts)	Min.	Max	@I_T(mA)	V_{RSM}(Volts)	I_{RSM}(Amps)	I_R (uA)
LT4ME5.0A	LT4ME5.0CA	HE	TE	5.0	6.40	7.07	10	9.2	43.5	800
LT4ME6.0A	LT4ME6.0CA	HG	TG	6.0	6.67	7.37	10	10.3	38.3	800
LT4ME6.5A	LT4ME6.5CA	HK	TK	6.5	7.22	7.98	10	11.2	35.7	500
LT4ME7.0A	LT4ME7.0CA	HM	TM	7.0	7.78	8.60	10	12.0	33.3	200
LT4ME7.5A	LT4ME7.5CA	HP	TP	7.5	8.3	9.21	1	12.9	31.0	100
LT4ME8.0A	LT4ME8.0CA	HR	TR	8.0	8.89	9.83	1	13.6	29.4	50
LT4ME8.5A	LT4ME8.5CA	HT	TT	8.5	9.44	10.43	1	14.4	27.7	10
LT4ME9.0A	LT4ME9.0CA	HV	TV	9.0	10.0	11.1	1	15.4	26.0	5
LT4ME10A	LT4ME10CA	HX	TX	10	11.1	12.3	1	17.0	23.5	5
LT4ME11A	LT4ME11CA	HZ	TZ	11	12.2	13.5	1	18.2	22.0	0.5
LT4ME12A	LT4ME12CA	IE	UE	12	13.3	14.7	1	19.9	20.1	0.5
LT4ME13A	LT4ME13CA	IG	UG	13	14.4	15.9	1	21.5	18.6	0.5
LT4ME14A	LT4ME14CA	IK	UK	14	15.6	17.2	1	23.2	17.2	0.5
LT4ME15A	LT4ME15CA	IM	UM	15	16.7	18.5	1	24.4	16.4	0.5
LT4ME16A	LT4ME16CA	IP	UP	16	17.8	19.7	1	26.0	15.3	0.5
LT4ME17A	LT4ME17CA	IR	UR	17	18.9	20.9	1	27.6	14.5	0.5
LT4ME18A	LT4ME18CA	IT	UT	18	20.0	22.1	1	29.2	13.7	0.5
LT4ME20A	LT4ME20CA	IV	UV	20	22.2	24.5	1	32.4	12.3	0.5
LT4ME22A	LT4ME22CA	IX	UX	22	24.4	27.0	1	35.5	11.2	0.5
LT4ME24A	LT4ME24CA	IZ	UZ	24	26.7	29.5	1	38.9	10.3	0.5
LT4ME26A	LT4ME26CA	JE	VE	26	28.9	31.9	1	42.1	9.5	0.5
LT4ME28A	LT4ME28CA	JG	VG	28	31.1	34.4	1	45.4	8.8	0.5
LT4ME30A	LT4ME30CA	JK	VK	30	33.3	36.8	1	48.4	8.3	0.5
LT4ME33A	LT4ME33CA	JM	VM	33	36.7	40.6	1	53.3	7.5	0.5
LT4ME36A	LT4ME36CA	JP	VP	36	40.0	44.2	1	58.1	6.9	0.5
LT4ME40A	LT4ME40CA	JR	VR	40	44.4	49.1	1	64.5	6.2	0.5
LT4ME43A	LT4ME43CA	JT	VT	43	47.8	52.8	1	69.4	5.7	0.5
LT4ME45A	LT4ME45CA	JV	VV	45	50.0	55.3	1	72.7	5.5	0.5
LT4ME48A	LT4ME48CA	JX	VX	48	53.3	58.9	1	77.4	5.2	0.5
LT4ME51A	LT4ME51CA	JZ	VZ	51	56.7	62.7	1	82.4	4.9	0.5
LT4ME54A	LT4ME54CA	RE	WE	54	60.0	66.3	1	87.1	4.6	0.5
LT4ME58A	LT4ME58CA	RG	WG	58	64.4	71.2	1	93.6	4.3	0.5
LT4ME60A	LT4ME60CA	PK	WK	60	66.7	73.7	1	96.8	4.1	0.5
LT4ME64A	LT4ME64CA	RM	WM	64	71.1	78.6	1	103	3.9	0.5
LT4ME70A	LT4ME70CA	RP	WP	70	77.8	86.0	1	113	3.5	0.5
LT4ME75A	LT4ME75CA	RR	WR	75	83.3	92.1	1	121	3.3	0.5
LT4ME78A	LT4ME78CA	RT	WT	78	86.7	95.8	1	126	3.2	0.5
LT4ME85A	LT4ME85CA	RV	WV	85	94.4	104	1	137	2.9	0.5
LT4ME90A	LT4ME90CA	RX	WX	90	100	111	1	146	2.7	0.5
LT4ME100A	LT4ME100CA	RZ	WZ	100	111	123	1	162	2.5	0.5
LT4ME110A	LT4ME110CA	SE	XE	110	122	135	1	177	2.3	0.5
LT4ME120A	LT4ME120CA	SG	XG	120	133	147	1	193	2.0	0.5
LT4ME130A	LT4ME130CA	SK	XK	130	144	159	1	209	1.9	0.5
LT4ME150A	LT4ME150CA	SM	XM	150	167	185	1	243	1.6	0.5
LT4ME160A	LT4ME160CA	SP	XP	160	178	197	1	259	1.5	0.5
LT4ME170A	LT4ME170CA	SR	XP	170	189	209	1	275	1.4	0.5
LT4ME188A	LT4ME188CA	SS	VS	188	209	231	1	328	1.2	0.5
LT4ME200A	LT4ME200CA	ST	YT	200	224	248	1	324	1.2	0.5

Notes: Suffix 'A denotes 5% tolerance device.

1. Add suffix' C or CA after part number to specify Bi-directional devices.
2. The I_R limit is double for Bi-directional devices.

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