

LT4ME5.0A(CA) - LT4ME200A(CA)

SURFACE-MOUNT UNIDIRECTIONAL AND BIDIRECTIONAL TRANSIENT VOLTAGE SUPPRESSORS

**STAND-OFF VOLTAGE - 5.0 to 200 Volts
POWER DISSIPATION - 400 Watts**

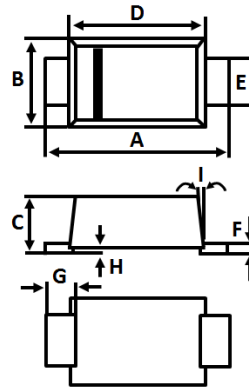
FEATURES

- For surface-mounted applications
- Reliable low cost construction utilizing molded plastic technique.
- Typical IR less than 1 μ A above 10V
- Fast response time: typically less than 1.0ns for Uni-direction, less than 5.0ns for Bi-direction, from Volts to BV min
- RoHS compliant
- IEC6100-4-2, >30KV(air); >30KV(Contact).(Note 4)
- **Lead-Free Finish; RoHS Compliant (Notes 1 & 2)**
- **Halogen and Antimony Free. "Green" Device (Note 3)**
- **For automotive applications requiring specific change control (i.e. parts qualified to AEC-Q100/101/104/200, PPAP capable, and manufactured in IATF 16949 certified facilities), please [contact us](https://www.diodes.com/quality/product-definitions/) or your local Diodes representative.**

MECHANICAL DATA

- Package: DO-219AA
- Package Material: "Green" molding compound UL flammability classification 94V-0 (No Br, Sb, Cl) "Halogen-free"
- Moisture Sensitivity: MSL1
- Terminals: Matte Tin Ⓜ
- Polarity: by cathode band denotes uni-directional device none cathode band denotes bi-directional device
- Weight: 0.002 ounces, 0.0165 gram (Approximate)

DO-219AA



DO-219AA			
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			

CATHODE ANODE

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 at TA = 25°C, TP = 1ms (Note 5)	P _{PP}	400	W
Peak Forward Surge Current 8.3ms single half sine-wave @ TJ = 25°C (Note 6)	I _{FSM}	40	A
Steady State Power Dissipation at TL = 120°C	PM(AV)	1.0	W
Maximum Instantaneous forward voltage at 16A for unidirectional devices only (Note 7)	VF	3	V
Operating junction temperature range	T _J	-55 to +175	°C
Storage temperature range	T _{STG}	-55 to +175	°C

Notes:

1. EU Directive 2002/95/EC (RoHS), 2011/65/EU (RoHS 2) & 2015/863/EU (RoHS 3) compliant. All applicable RoHS exemptions applied.
2. See <https://www.diodes.com/quality/lead-free/> for more information about Diodes Incorporated's definitions of Halogen- and Antimony-free, "Green" and Lead-free.
3. Halogen- and Antimony-free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.
4. LT4ME5.0 thru LT4ME24 devices that comply IEC 61000-4-2 levels.
5. Non-repetitive current pulse, per fig. 3 and derated above TA = 25°C per fig.1.
6. Only for unidirectional units.
7. VF max = 3V at IF = 16A 300 μ s square wave pulse.

RATING AND CHARACTERISTIC CURVES
LT4ME5.0A(CA) - LT4ME200A(CA)

FIG.1- Pulse Derating Curve

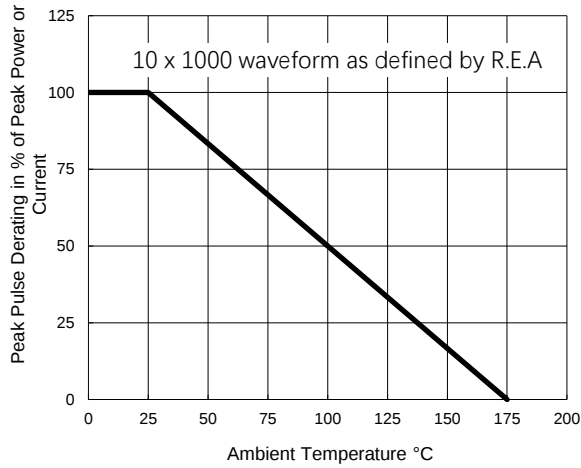


FIG.2- Steady State Power Derating Curve

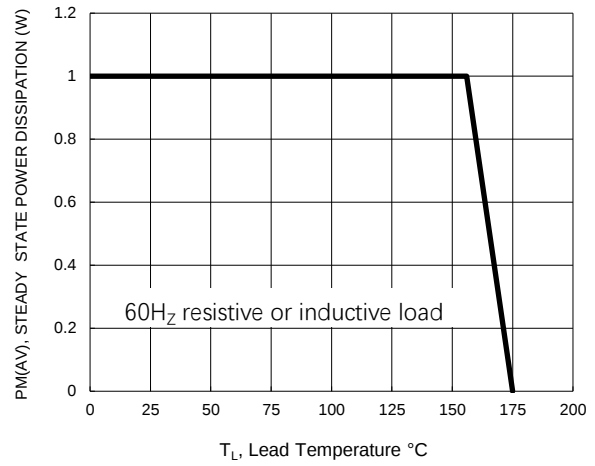


FIG.3- Pulse Rating Curve

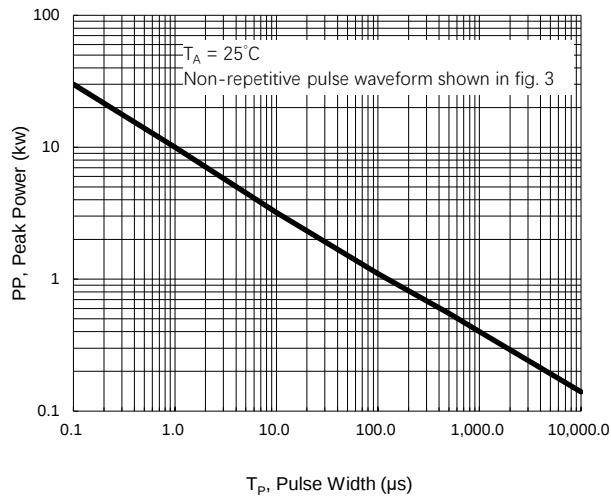


FIG.4- Typical Junction Capacitance

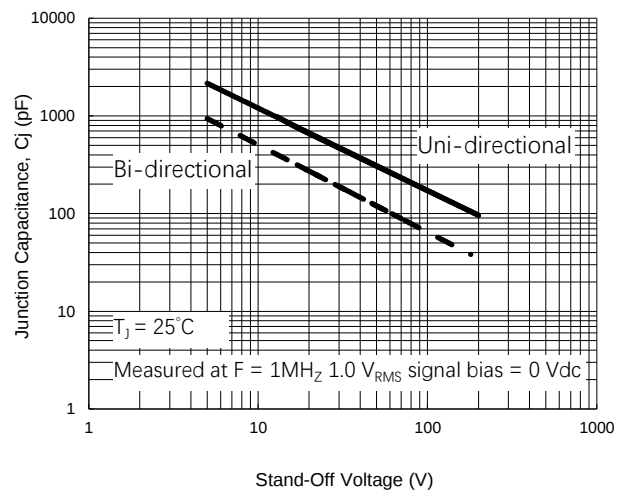
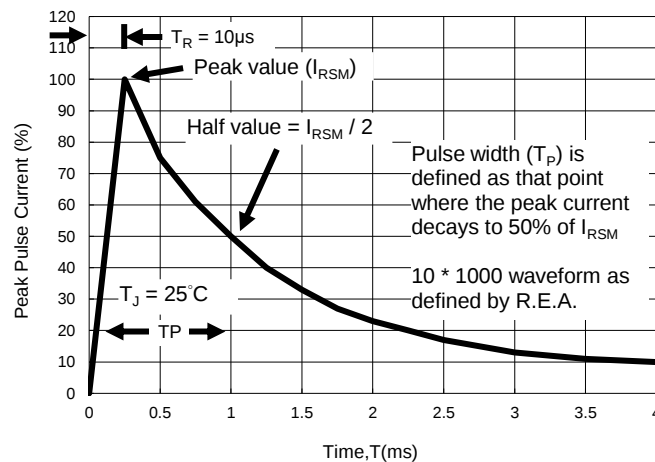


FIG.5- Pulse waveform



Device		Marking code		Reverse stand-off voltage	Breakdown voltage V_{BR} Volts			Maximum reverse voltage at I_{RSM} (clamping)	Maximum reverse surge current	Maximum reverse leakage at V_{RWM}
Uni	Bi	Uni	Bi	V_{RWM} (Volts)	Min.	Max	@ I_T (mA)	V_{RSM} (Volts)	I_{RSM} (Amps)	I_R (μ A)
LT4ME5.0A	LT4ME5.0CA	HE	TE	5.0	6.40	7.07	10	9.2	43.5	800
—	LT4ME6.0CA	—	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
—	LT4ME8.0CA	—	TR	8.0	8.89	9.83	1	13.6	29.4	50
—	LT4ME8.5CA	—	TT	8.5	9.44	10.43	1	14.4	27.7	10
LT4ME10A	LT4ME10CA	HX	TX	10	11.1	12.3	1	17.0	23.5	5
LT4ME12A	LT4ME12CA	IE	UE	12	13.3	14.7	1	19.9	20.1	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	—	IR	—	17	18.9	20.9	1	27.6	14.5	0.5
LT4ME18A	—	IT	—	18	20.0	22.1	1	29.2	13.7	0.5
LT4ME20A	—	IV	—	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	—	JT	—	43	47.8	52.8	1	69.4	5.7	0.5
LT4ME45A	—	JV	—	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	—	RE	—	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	—	RX	—	90	100	111	1	146	2.7	0.5
LT4ME100A	LT4ME100CA	RZ	WZ	100	111	123	1	162	2.5	0.5
LT4ME110A	—	SE	—	110	122	135	1	177	2.3	0.5
LT4ME120A	—	SG	—	120	133	147	1	193	2.0	0.5
LT4ME150A	—	SM	XM	150	167	185	1	243	1.6	0.5
LT4ME170A	—	SR	—	170	189	209	1	275	1.4	0.5
LT4ME188A	—	SS	—	188	209	231	1	328	1.2	0.5
LT4ME200A	—	ST	—	200	224	248	1	324	1.2	0.5

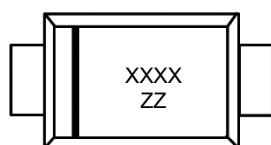
Notes:

8. Suffix 'A' denotes 5% tolerance device.
9. Add suffix 'C' or 'CA' after part number to specify Bi-directional devices.
10. The IR limit is double for Bi-directional devices.

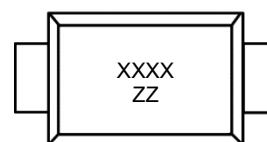
Ordering Information :

Part Number	Package	Packing	
		Qty.	Carrier
LT4MEx.xA(CA) LT4MExxA(CA) LT4MExxxA(CA)	DO-219AA	10000pcs	Reel
	DO-219AA	2500pcs	Reel

Marking Information :



Uni-Directional



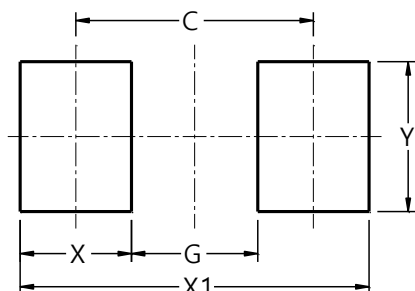
Bi-Directional

XXXX : Assembly Tracking code
ZZ : Product Type Marking code
Bar Denotes Cathode Side

Packaging Information :

DEVICE	REEL DIA.	Q'TY/REEL	REEL/BOX	Q'TY/BOX	BOX/CARTON	Q'TY/CARTON	BOX SIZE	CARTON SIZE
	(INCH)	(PCS)	(REEL)	(PCS)	(BOX)	(PCS)	(mm)	(mm)
LT4MEx.xA(CA) LT4MExxA(CA) LT4MExxxA(CA)	13	10000	2	10000	8	160000	334*334*39	350*350*340
	7	2500	4	10000	10	100000	184*184*72	350*350*340

Suggested Pad Layout :



Dimensions	Value (in mm)
C	2.86
G	1.52
X	1.34
X1	4.20
Y	1.80

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