

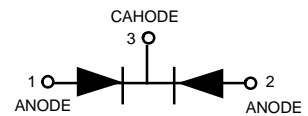
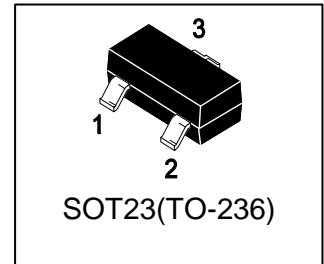
# LMBD3004CLT1G

## S-LMBD3004CLT1G

### HIGH VOLTAGE SURFACE MOUNT SWITCHING DIODE

#### 1. FEATURES

- We declare that the material of product compliance with RoHS requirements and Halogen Free.
- S- prefix for automotive and other applications requiring unique site and control change requirements; AEC-Q101 qualified and PPAP capable.
- Fast Switching Speed
- High Conductance
- High Reverse Breakdown Voltage Rating



#### 2. DEVICE MARKING AND RESISTOR VALUES

Device	Marking	Shipping
LMBD3004CLT1G	KAC	3000/Tape&Reel
LMBD3004CLT3G	KAC	10000/Tape&Reel

#### 3. MAXIMUM RATINGS(Ta = 25°C)

Parameter	Symbol	Limits	Unit
Peak Repetitive Reverse Voltage	VRRM	350	V
Working Peak Reverse Voltage	VRWM	350	
DC Blocking Voltage	VR		
RMS Reverse Voltage	VR(RMS)	212	V
Forward Continuous Current (Note 1)	IF	225	mA
Repetitive Peak Forward Current (Note 1)	IFRM	625	mA
Non-Repetitive Peak Forward Surge Current t=1μs t=1s	IFSM	4 1	A

1. Part mounted on FR-4 board with recommended pad layout.

#### 4. THERMAL CHARACTERISTICS

Parameter	Symbol	Limits	Unit
Total Device Dissipation, FR-4 Board (Note 2) @ TA = 25°C Derate above 25°C	PD	280 2.24	mW mW/°C
Thermal Resistance, Junction-to-Ambient(Note 2)	RθJA	446	°C/W
Junction and Storage temperature	TJ, Tstg	-65~+150	°C

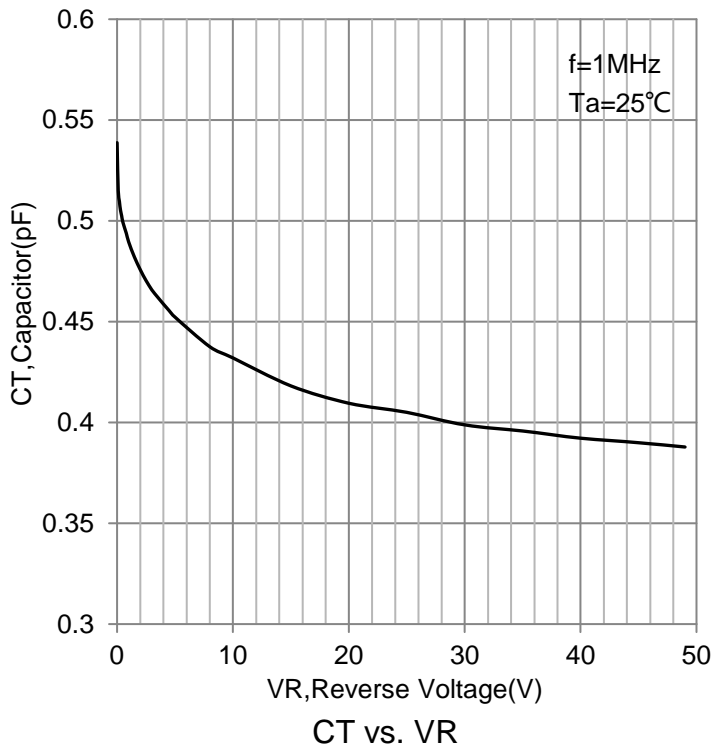
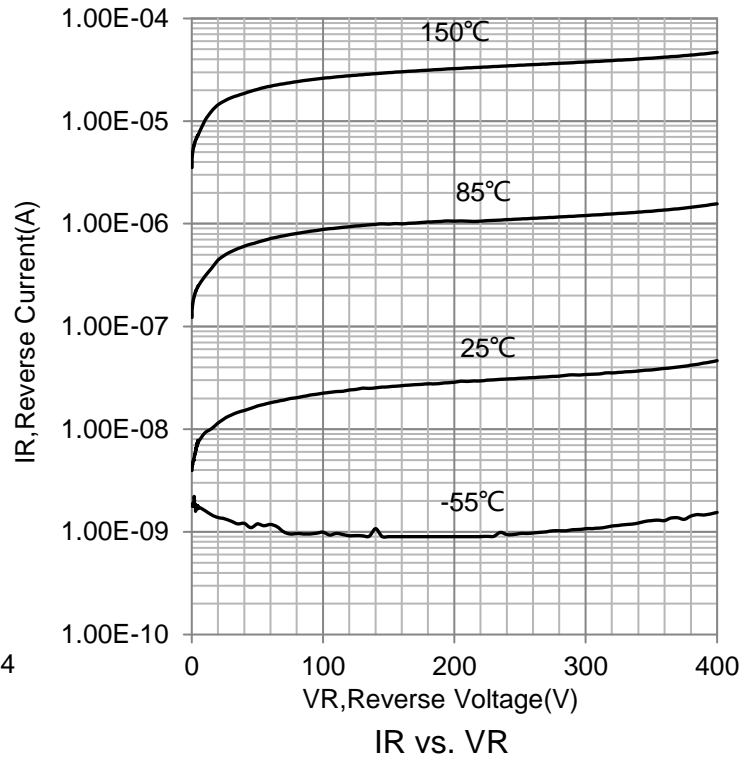
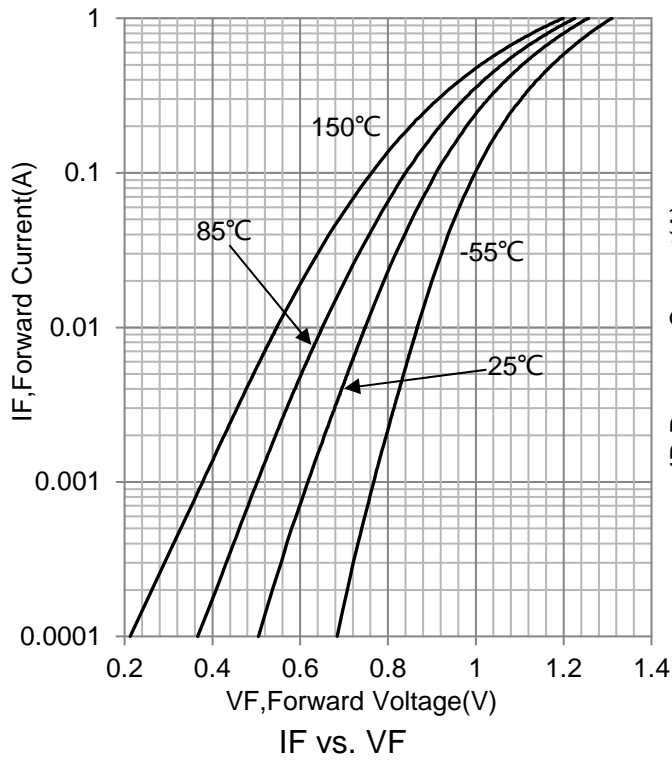
2. FR-4 = 30.0mm×25.0mm×1.6mm, thickness of copper film:50 μm.

**5. ELECTRICAL CHARACTERISTICS (Ta= 25°C)**

CHARACTERISTICS	Symbol	Min	Typ.	Max	Unit
Reverse Breakdown Voltage(Note 3) (IR = 100 $\mu$ A)	VBR	350	-	-	V
Forward voltage(Note 3) (IF =20mA) (IF =100mA) (IF =200mA)	VF	- - -	0.78 0.93 1.03	0.87 1 1.25	V
Reverse Current(Note 3) (VR=240V) (VR=240V, Tj=150°C)	IR	- -	30 35	100 100	nA $\mu$ A
Total Capacitance (f=1MHz, VR =0)	CT	-	1	5	pF
Reverse Recovery Time (IF=IR=30mA, Irr=3.0mA, RL =100 $\Omega$ )	Trr	-	-	50	nS

3. Short duration test pulse used to minimize self-heating effect.

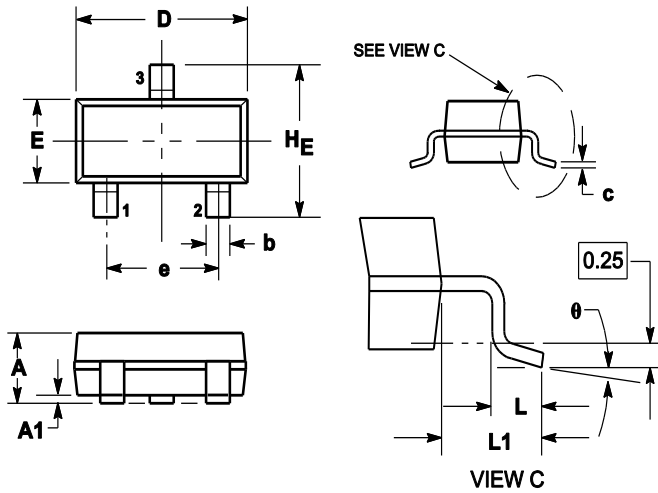
**6.ELECTRICAL CHARACTERISTICS CURVES**



### 7. OUTLINE AND DIMENSIONS

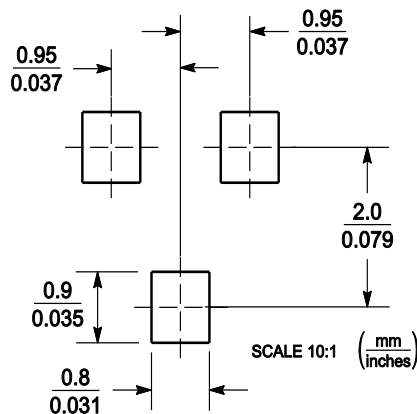
Notes:

1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.
2. CONTROLLING DIMENSION: MILLIMETERS.
3. MAXIMUM LEAD THICKNESS INCLUDES LEAD FINISH. MINIMUM LEAD THICKNESS IS THE MINIMUM THICKNESS OF BASE MATERIAL.
4. DIMENSIONS D AND E DO NOT INCLUDE MOLD FLASH, PROTRUSIONS OR GATE BURRS.



DIM	MILLIMETERS			INCHES		
	MIN	NOM	MAX	MIN	NOM	MAX
A	0.89	1	1.11	0.035	0.04	0.044
A1	0.01	0.06	0.1	0.001	0.002	0.004
b	0.37	0.44	0.5	0.015	0.018	0.02
c	0.09	0.13	0.18	0.003	0.005	0.007
D	2.80	2.9	3.04	0.11	0.114	0.12
E	1.20	1.3	1.4	0.047	0.051	0.055
e	1.78	1.9	2.04	0.07	0.075	0.081
L	0.10	0.2	0.3	0.004	0.008	0.012
L1	0.35	0.54	0.69	0.014	0.021	0.029
HE	2.10	2.4	2.64	0.083	0.094	0.104
theta	0°	---	10°	0°	---	10°

### 8. SOLDERING FOOTPRINT



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