

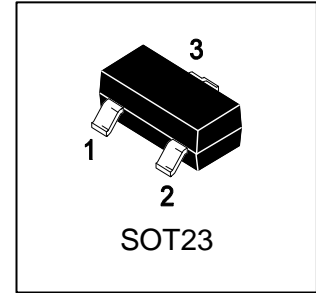
LMBD6100LT1G

S-LMBD6100LT1G

Monolithic Dual Switching Diode

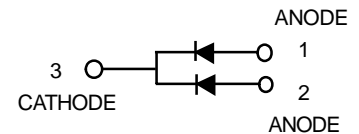
1. FEATURES

- 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.



2. DEVICE MARKING AND ORDERING INFORMATION

Device	Marking	Shipping
LMBD6100LT1G	5BM	3000/Tape&Reel
LMBD6100LT3G	5BM	10000/Tape&Reel



3. MAXIMUM RATINGS(Ta = 25°C)

Parameter	Symbol	Limits	Unit
Reverse Voltage	VR	70	V
Forward Current	IF	200	mA
Peak Forward Surge Current	IFM(surge)	500	mA

4. THERMAL CHARACTERISTICS

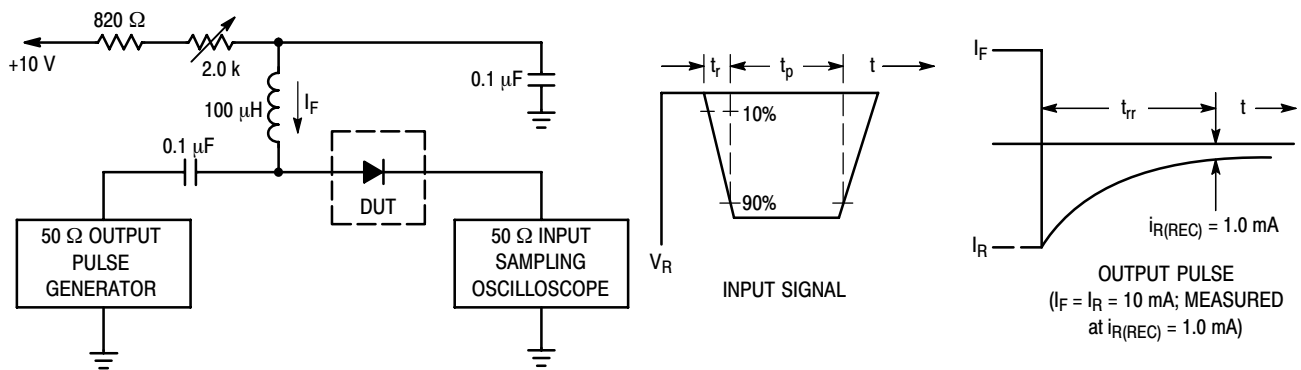
Parameter	Symbol	Value	Unit
Total Device Dissipation FR-5 Board (Note 1) TA = 25°C	PD	225	mW
Derate above 25°C		1.8	mW/°C
Thermal Resistance, Junction to Ambient	RθJA	556	°C/W
Total Device Dissipation Alumina Substrate(Note 2) TA = 25°C	PD	300	mW
Derate above 25°C		2.4	mW/°C
Thermal Resistance, Junction to Ambient	RθJA	417	°C/W
Junction and Storage Temperature	TJ , Tstg	-55~+150	°C

1. FR-5 = 1.0 x 0.75 x 0.062 in.

2. Alumina = 0.4 x 0.3 x 0.024 in. 99.5% alumina.

5. ELECTRICAL CHARACTERISTICS (Ta= 25°C)

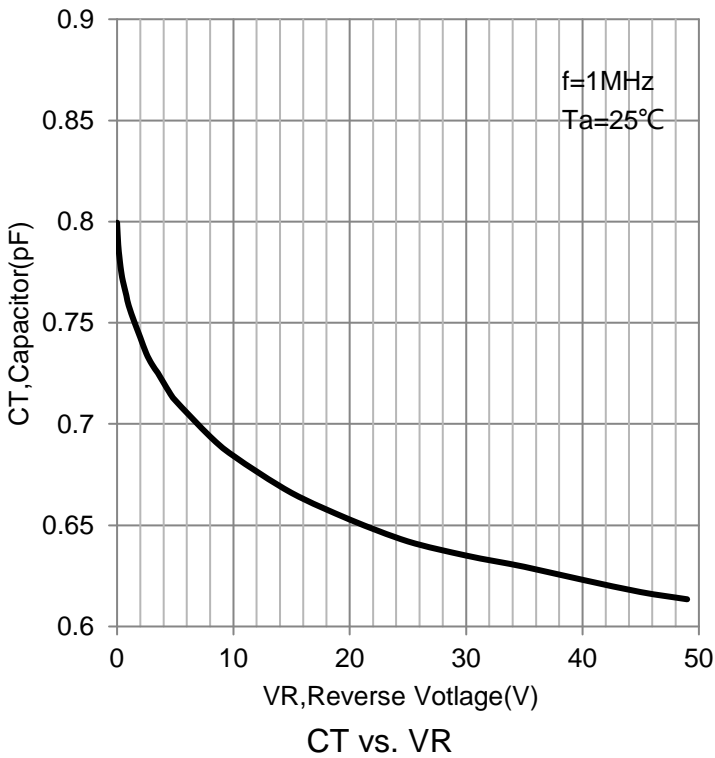
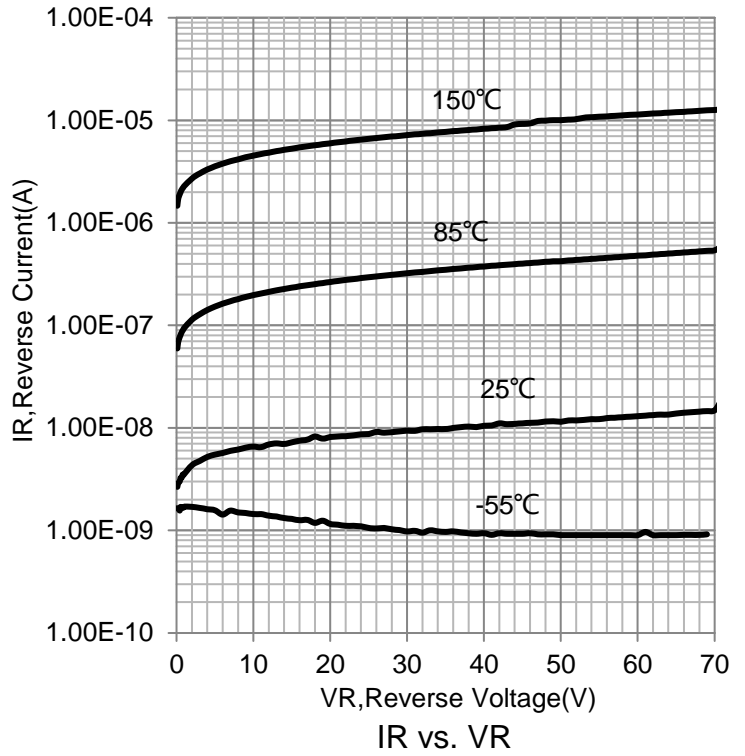
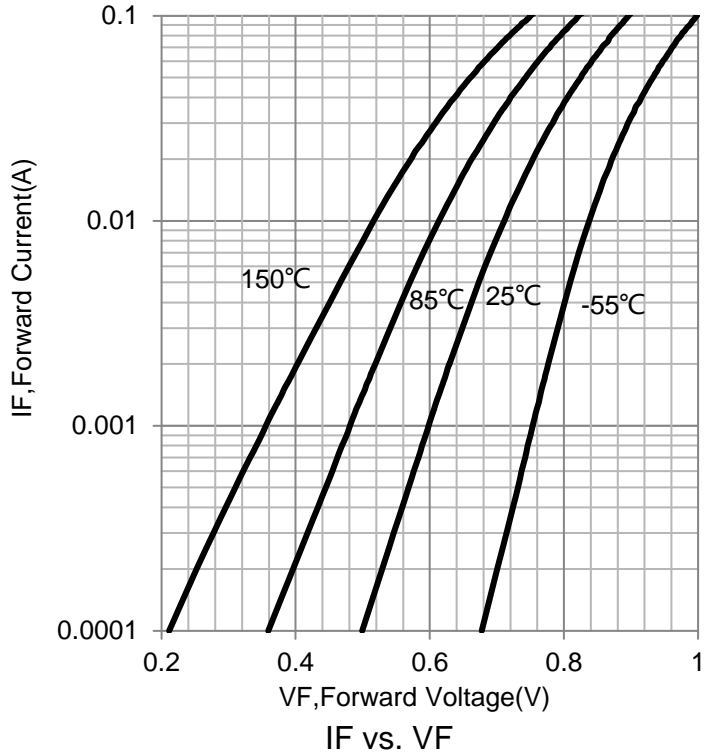
Characteristic	Symbol	Min.	Typ.	Max.	Unit
Reverse Breakdown Voltage ($I_{BR} = 100 \mu A$)	$V_{(BR)}$	70	-	-	V
Reverse Voltage Leakage Current ($V_R = 50 V$)	I_R	-	-	0.1	μA
Forward Voltage ($I_F = 1.0 mA$) ($I_F = 100 mA$)	V_F	0.55 0.8	- -	0.7 1.1	V
Reverse Recovery Time ($I_F=I_R=10mA, I_R(REC)=1.0mA$)(Figure 1)	t_{rr}	-	-	4	nS
Capacitance($V_R=0V$)	C	-	-	2.5	pF



- Notes: 1. A 2.0 kΩ variable resistor adjusted for a Forward Current (I_F) of 10 mA.
 2. Input pulse is adjusted so $I_{R(peak)}$ is equal to 10 mA.
 3. $t_p \gg t_{rr}$

Figure 1. Recovery Time Equivalent Test Circuit

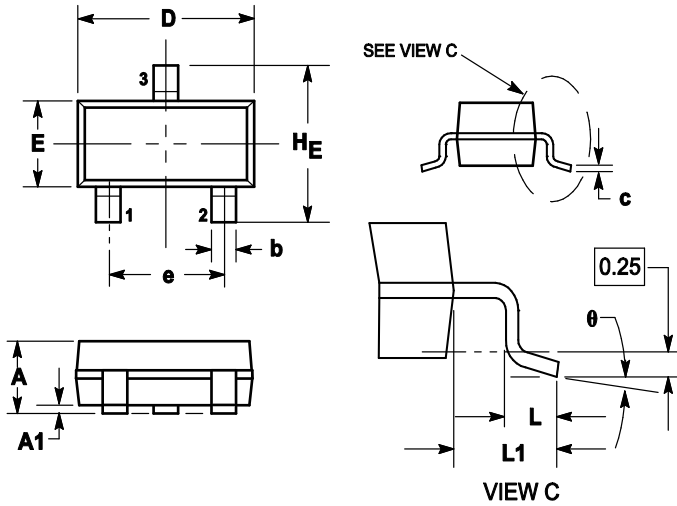
6.ELECTRICAL CHARACTERISTICS CURVES



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
θ	0°	---	10°	0°	---	10°

8. SOLDERING FOOTPRINT

