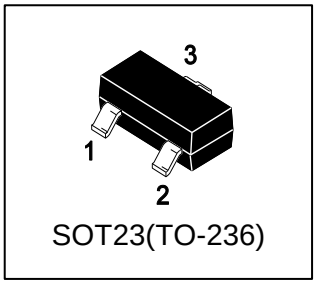
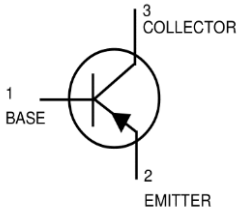
LBC807-16LT1G
S-LBC807-16LT1G

General Purpose Transistors PNP Silicon



SOT23(TO-236)



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.
- Collector current capability IC = -500 mA.
- Collector-emitter voltage VCEO (max) = -45 V.
- General purpose switching and amplification.

2. DEVICE MARKING AND RESISTOR VALUES

Device	Marking	Shipping
LBC807-16LT1G	5A1	3000/Tape&Reel
LBC807-16LT3G	5A1	13000/Tape&Reel

3. MAXIMUM RATINGS(Ta = 25ºC)

Parameter	Symbol	Limits	Unit
Collector-Emitter Voltage	VCEO	-45	V
Collector-Base Voltage	VCBO	-50	V
Emitter-Base Voltage	VEBO	-5	V
Continuous Collector Current	IC	-500	mA

4. THERMAL CHARACTERISTICS

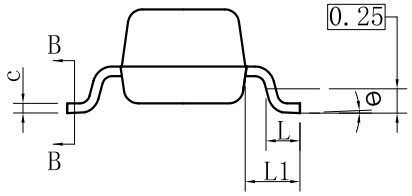
Parameter	Symbol	Limits	Unit
Total Device Dissipation FR– 5 Board, (Note 1) TA = 25°C Derate above 25°C	PD	 225 1.8	 mW mW/℃
Thermal resistance from junction to ambient	RθJA	556	℃/W
Total Device Dissipation Alumina Substrate, (Note 2) TA = 25°C Derate above 25°C	PD	 300 2.4	 mW mW/℃
Thermal resistance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

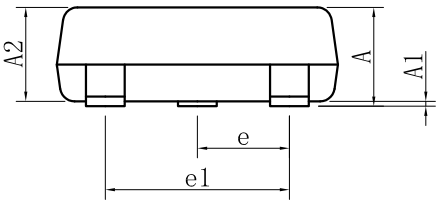
1. FR–5 = 1.0 x 0.75 x 0.062 in.
2. Alumina = 0.4 x 0.3 x 0.024 in. 99.5% alumina.

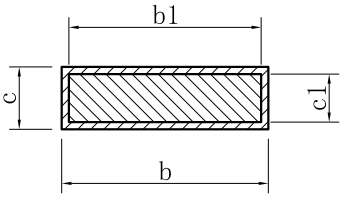
5. ELECTRICAL CHARACTERISTICS (Ta= 25°C)

Characteristic	Symbol	Min.	Typ.	Max.	Unit
OFF CHARACTERISTICS					
Collector-Emitter Breakdown Voltage (IC = -10mA)	BVCEO	-45	-	-	V
Collector-Base Breakdown Voltage (IC = -10μA)	BVCBO	-50	-	-	
Emitter-Base Breakdown Voltage (IE = -1μA)	BVEBO	-5	-	-	
Collector Cut-off Current (VCB =-20V) (VCB = –20 V, TJ = 150°C)	ICBO	- -	- -	-100 -5	nA μA
Emitter-Base cut-off current (IC = 0, VEB = -5 V)	IEBO	-	-	-100	nA
Collector-Emitter cutoff Current (VCE＝-45V, IB=0)	ICEO	-	-	-5	μA
ON CHARACTERISTICS					
DC Current Gain (IC = –100 mA, VCE = –1.0 V) (IC = –500 mA, VCE = –1.0 V)	hFE	100 40	- -	250 -	
Collector-Emitter saturation Voltage (IC =-500mA, IB = -50mA)	VCE(sat)	-	-	-0.7	V
Base–Emitter On Voltage (IC = –500 mA, VCE = –1.0 V)	VBE(on)	-	-	-1.2	V
SMALL–SIGNAL CHARACTERISTICS					
Current–Gain — Bandwidth Product (IC = –10 mA, VCE = –5.0 V, f = 100 MHz)	fT	100	-	-	MHz
Output Capacitance (VCB = –10 V, f = 1.0 MHz)	Cob	-	10	-	pF

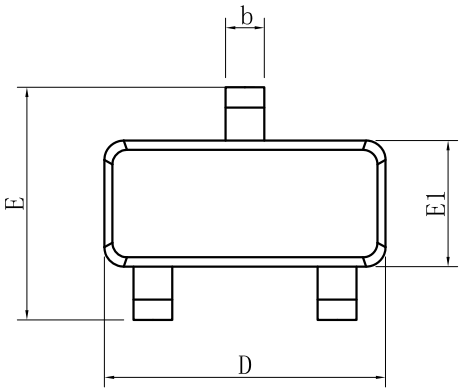
6.OUTLINE AND DIMENSIONS







SECTION B-B

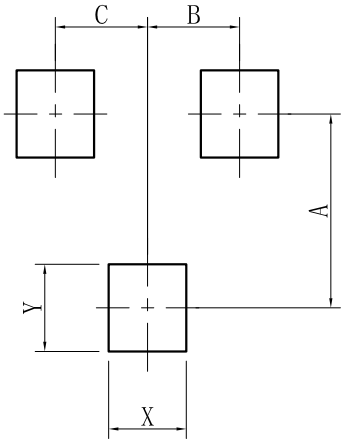


SOT23			
DIM	MIN	NOR	MAX
A	0.89	-	1.12
A1	0.01	-	0.10
A2	0.88	0.95	1.02
b	0.30	-	0.50
b1	0.30	0.40	0.45
c	0.08	-	0.20
c1	0.08	0.10	0.16
D	2.80	2.90	3.04
E	2.10	-	2.64
E1	1.20	1.30	1.40
e	0.95BSC		
e1	1.90BSC		
L	0.40	0.46	0.60
L1	0.54REF		
θ	0°	-	8°
All Dimensions in mm			

GENERAL NOTES

1. Top package surface finish Ra0.4±0.2um
2. Bottom package surface finish Ra0.7±0.2um
3. Side package surface finish Ra0.4±0.2um

7.SOLDERING FOOTPRINT



SOT-23	
DIM	(mm)
X	0.80
Y	0.90
A	2.00
B	0.95
C	0.95

DISCLAIMER

- Curve guarantee in the specification. The curve of test items with electric parameter is used as quality guarantee. The curve of test items without electric parameter is used as reference only.

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