

Dual General Purpose Transistors

PNP Duals

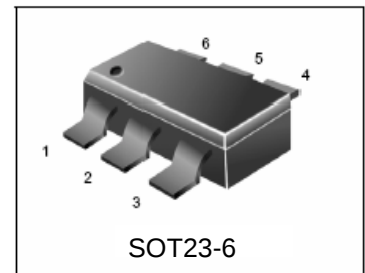
- We declare that the material of product compliance with RoHS requirements.
- S- Prefix for Automotive and Other Applications Requiring Unique Site and Control Change Requirements; AEC-Q101 Qualified and PPAP Capable.

LBC807-16DMT1G
LBC807-25DMT1G
LBC807-40DMT1G

S-LBC807-16DMT1G
S-LBC807-25DMT1G
S-LBC807-40DMT1G

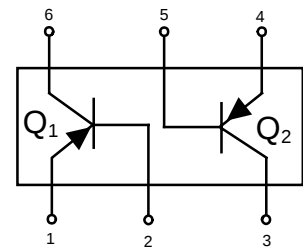
MAXIMUM RATINGS

Rating	Symbol	Value	Unit
Collector–Emitter Voltage	V_{CEO}	45	V
Collector–Base Voltage	V_{CBO}	50	V
Emitter–Base Voltage	V_{EBO}	5.0	V
Collector Current — Continuous	I_C	500	mAdc



THERMAL CHARACTERISTICS

Characteristic	Symbol	Max	Unit
Total Device Dissipation FR– 5 Board, (1) $T_A = 25^\circ\text{C}$	P_D	370	mW
Derate above 25°C		3.0	mW/ $^\circ\text{C}$
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	333	$^\circ\text{C/W}$
Total Device Dissipation Alumina Substrate, (2) $T_A = 25^\circ\text{C}$	P_D	600	mW
Derate above 25°C		4.8	mW/ $^\circ\text{C}$
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	208	$^\circ\text{C/W}$
Junction and Storage Temperature	T_J, T_{stg}	–55 to +150	$^\circ\text{C}$



DEVICE MARKING

LBC807–16DMT1G = 5A; LBC807–25DMT1G = 5B; LBC807–40DMT1G = 5C

ELECTRICAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$ unless otherwise noted.)

Characteristic	Symbol	Min	Typ	Max	Unit
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OFF CHARACTERISTICS

Collector–Emitter Breakdown Voltage ($I_C = -10\text{ mA}$)	$V_{(BR)CEO}$	45	—	—	V
Collector–Emitter Breakdown Voltage ($V_{EB} = 0, I_C = -10\text{ }\mu\text{A}$)	$V_{(BR)CES}$	50	—	—	V
Emitter–Base Breakdown Voltage ($I_E = -1.0\text{ }\mu\text{A}$)	$V_{(BR)EBO}$	5.0	—	—	V
Collector Cutoff Current ($V_{CB} = 20\text{ V}$)	I_{CBO}	—	—	100	nA
($V_{CB} = 20\text{ V}, T_A = 150^\circ\text{C}$)		—	—	5.0	μA

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.

LBC807-16DMT1G LBC807-25DMT1G LBC807-40DMT1G
S-LBC807-16DMT1G S-LBC807-25DMT1G S-LBC807-40DMT1G

ELECTRICAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$ unless otherwise noted) (Continued)

Characteristic	Symbol	Min	Typ	Max	Unit
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ON CHARACTERISTICS

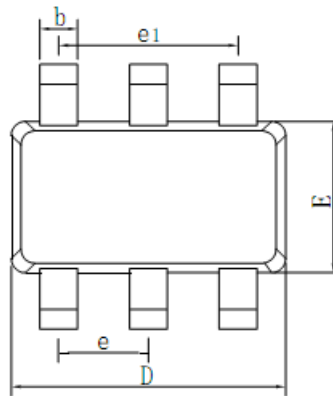
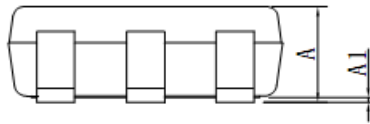
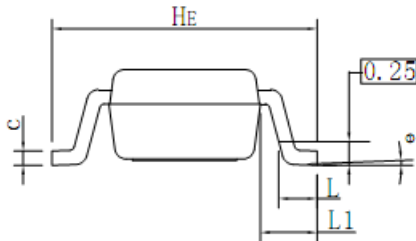
DC Current Gain ($I_C = 100\text{ mA}$, $V_{CE} = 1.0\text{ V}$)	h_{FE}	100	—	250	
LBC807-16		160	—	400	
LBC807-25		250	—	600	
LBC807-40		40	—	—	
($I_C = 500\text{ mA}$, $V_{CE} = 1.0\text{ V}$)					
Collector-Emitter Saturation Voltage ($I_C = 500\text{ mA}$, $I_B = 50\text{ mA}$)	$V_{CE(sat)}$	—	—	0.7	V
Base-Emitter On Voltage ($I_C = 500\text{ mA}$, $V_{CE} = 1.0\text{ V}$)	$V_{BE(on)}$	—	—	1.2	V

SMALL-SIGNAL CHARACTERISTICS

Current-Gain — Bandwidth Product ($I_C = 10\text{ mA}$, $V_{CE} = 5.0\text{ V}_{dc}$, $f = 100\text{ MHz}$)	f_T	100	—	—	MHz
Output Capacitance ($V_{CB} = 10\text{ V}$, $f = 1.0\text{ MHz}$)	C_{obo}	—	10	—	pF

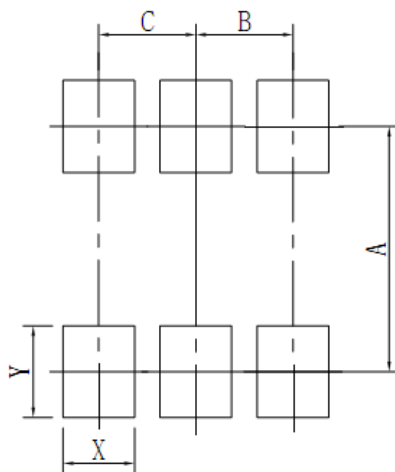
OUTLINE AND DIMENSIONS

SOT23-6



SOT23-6			
DIM	MIN	NOR	MAX
A	0.90	1.00	1.10
A1	0.01	0.06	0.10
b	0.25	0.40	0.50
c	0.10	0.17	0.26
D	2.80	2.90	3.10
E	1.30	1.60	1.70
e	0.85	0.95	1.05
e1	1.80	1.90	2.00
L	0.20	0.40	0.60
L1	0.60REF		
HE	2.50	2.80	3.00
θ	0°	-	10°

SOLDERING FOOTPRINT



SOT23-6	
DIM	(mm)
X	0.70
Y	0.90
A	2.40
B	0.95
C	0.95