

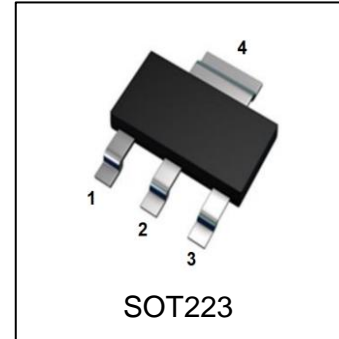
LBTP180Z4TZHG

S-LBTP180Z4TZHG

PNP medium power transistors

1. FEATURES

- High current
- Low voltage
- 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.

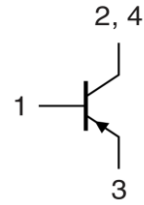


2. DEVICE MARKING AND ORDERING INFORMATION

Device	Marking	Shipping
LBTP180Z4TZHG	PB	1000/Tape&Reel

3. MAXIMUM RATINGS(Ta = 25°C)

Parameter	Symbol	Limits	Unit
Collector–Emitter Voltage	VCEO	-80	V
Collector–Base Voltage	VCBO	-100	V
Emitter–Base Voltage	VEBO	-5	V
Collector Current — Continuous	IC	-1	A
Peak Collector Current	ICM	-1.5	A
Peak Base Current	IBM	-0.2	A
Junction and Storage temperature	TJ, Tstg	-55 ~ +150	°C



4. THERMAL CHARACTERISTICS

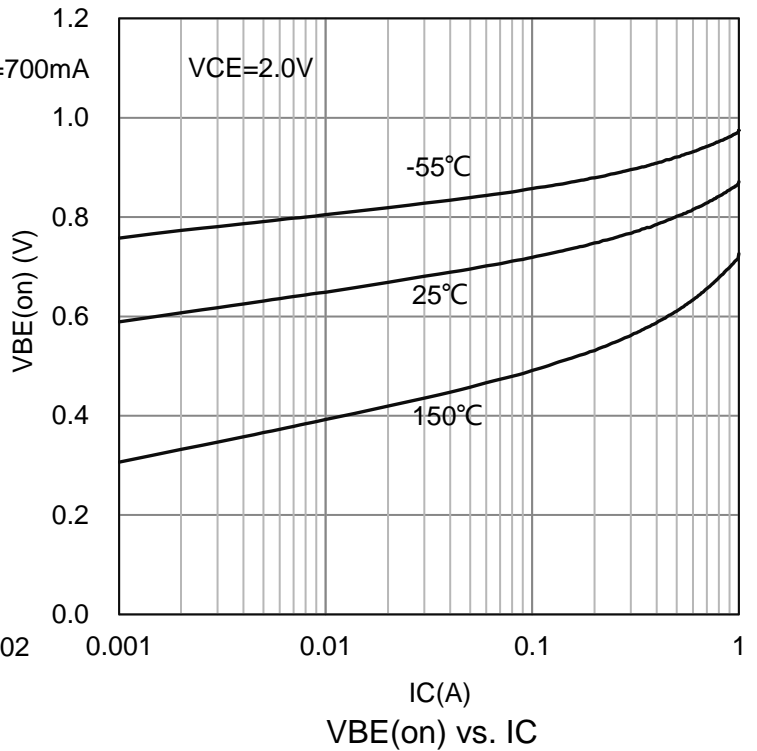
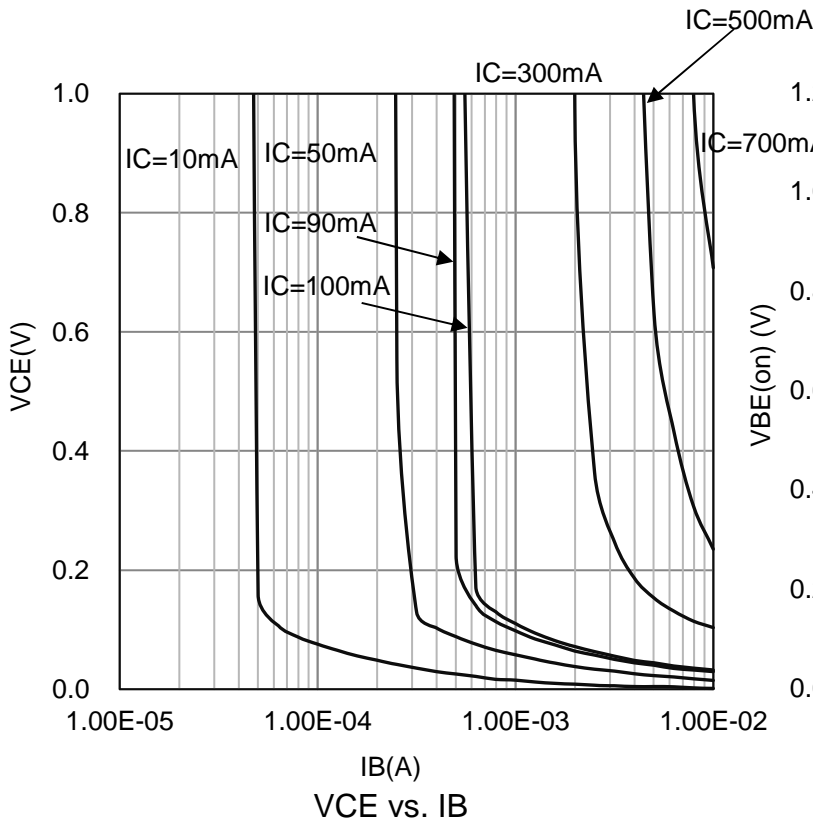
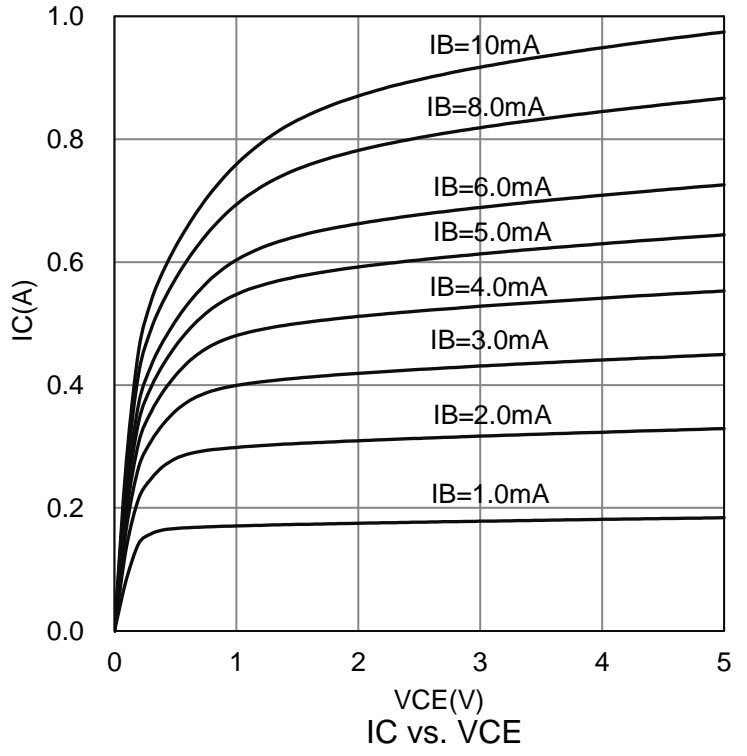
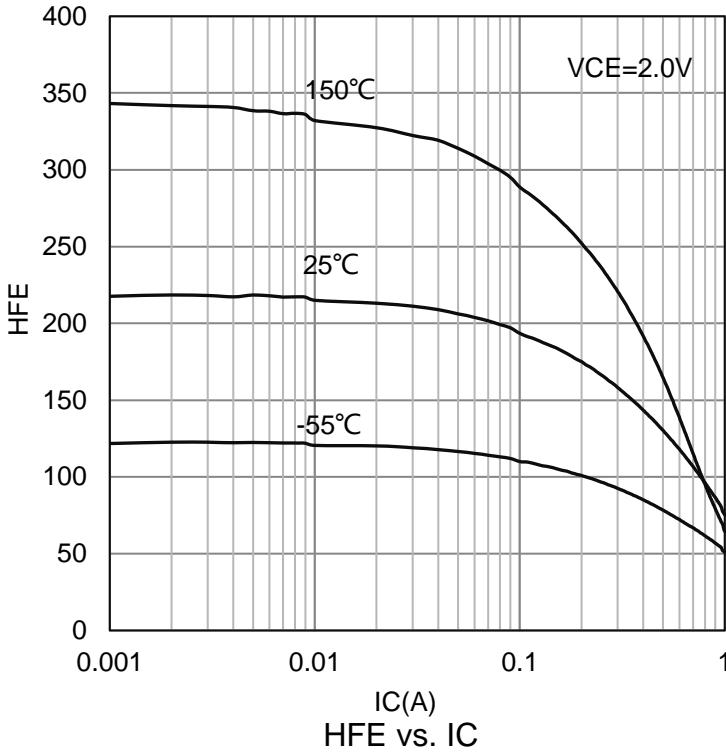
Parameter	Symbol	Limits	Unit
Total Device Dissipation, FR-4 Board (Note 1) @ TA = 25°C	PD	833	mW
Thermal Resistance, Junction–to–Ambient(Note 1)	RθJA	150	°C/W

1. FR-4 = 30.0mm×25.0mm×1.6mm.

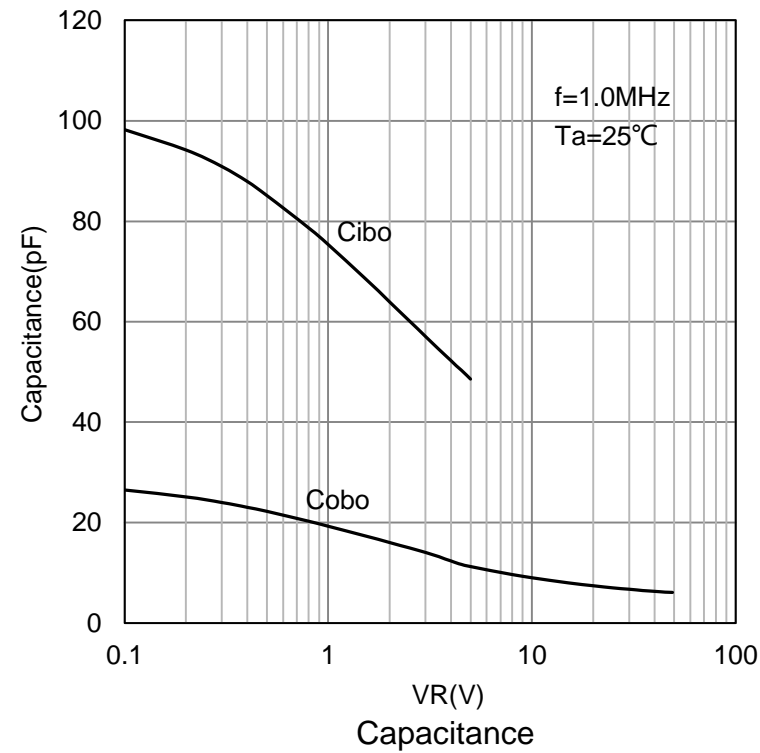
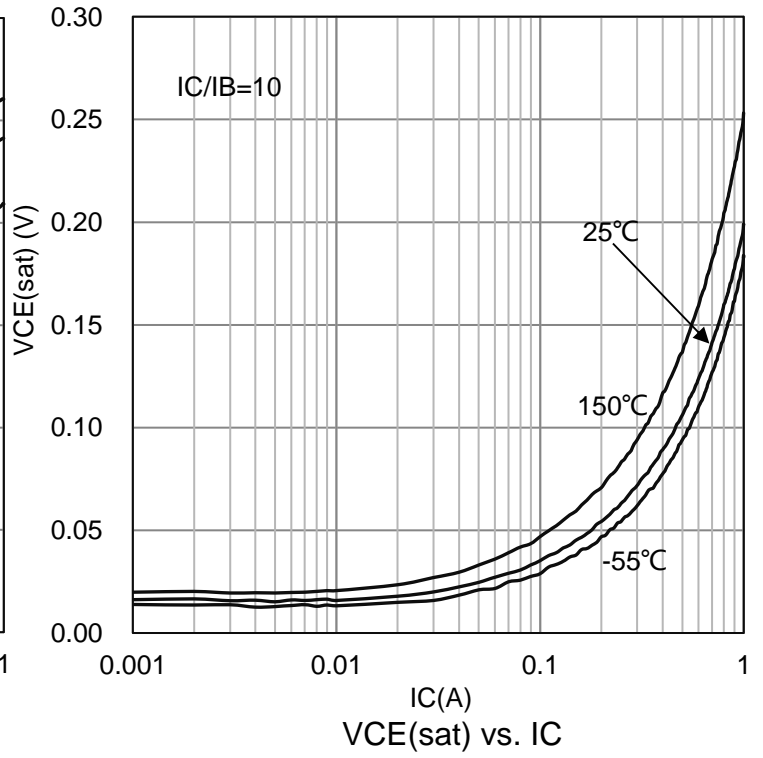
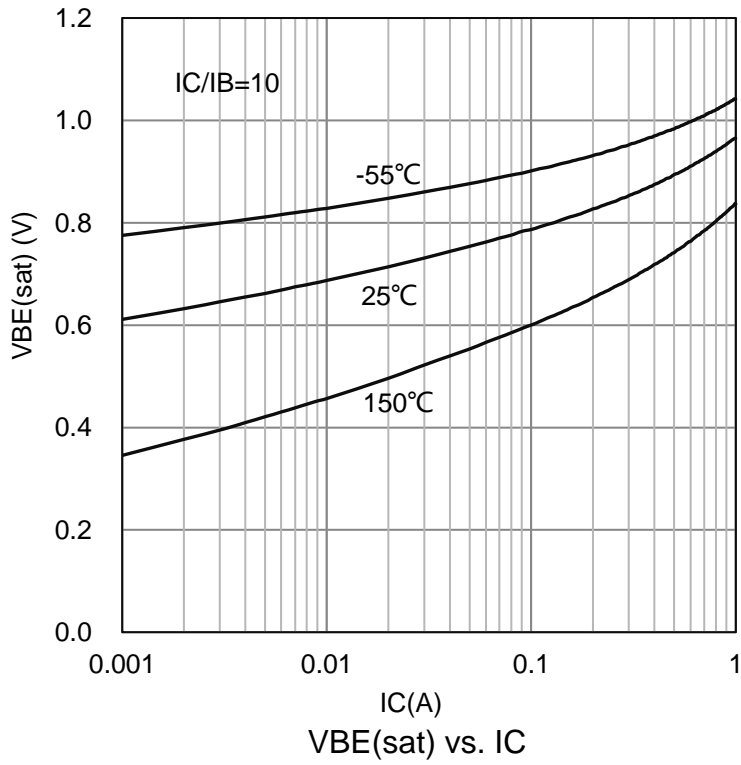
5. ELECTRICAL CHARACTERISTICS (Ta= 25°C)

Characteristic	Symbol	Min.	Typ.	Max.	Unit
Collector–Emitter Breakdown Voltage (IC = -1.0 mA, IB = 0)	VBR(CEO)	-80	-	-	V
Collector–Base Breakdown Voltage (IC = -100 μA, IE = 0)	VBR(CBO)	-100	-	-	V
Emitter–Base Breakdown Voltage (IE = -100 μA, IC = 0)	VBR(EBO)	-5	-	-	V
Collector Cutoff Current (IE = 0, VCB = -30 V) (IE = 0, VCB = -30 V, Tj = 125 °C)	ICBO	-	-	-100 -10	nA μA
Emitter CutOff Current (IC = 0, VEB = -5 V)	IEBO	-	-	-100	nA
DC Current Gain (IC = -5mA, VCE = -2V) (IC = -150mA, VCE = -2V) (IC = -500mA, VCE = -2V)	HFE	40 100 40	- - -	- 250 -	
Collector–Emitter Saturation Voltage (IC = -500 mA, IB = -50 mA)	VCE(sat)	-	-	-0.5	V
Base–Emitter Voltage (IC = -500 mA, VCE = -2 V)	VBE	-	-	-1	V
Transitional Frequency (IC = -10 mA, VCE = -5 V, f = 100 MHz)	fT	-	115	-	MHz

6. ELECTRICAL CHARACTERISTICS CURVES

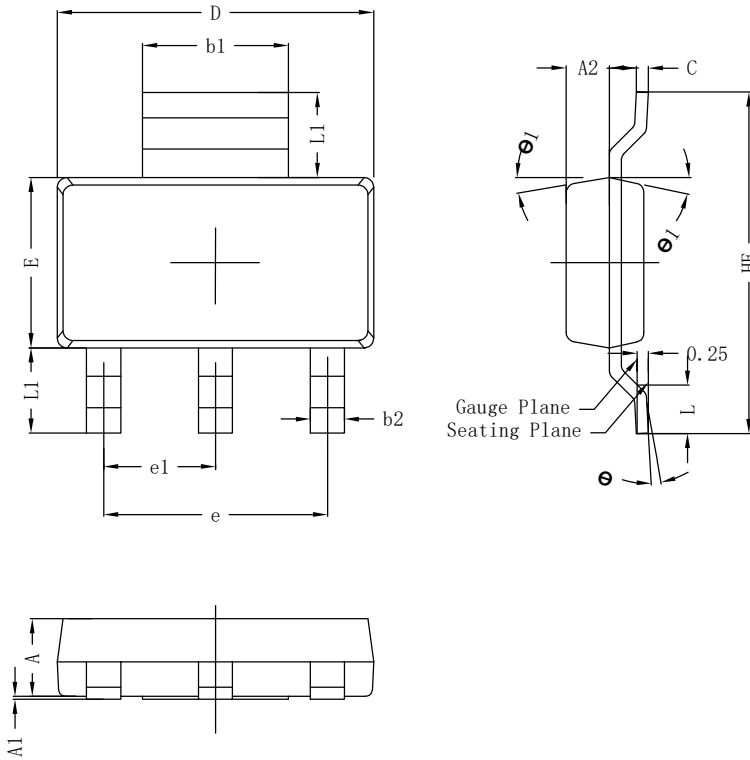


6.ELECTRICAL CHARACTERISTICS CURVES(Con.)



7. OUTLINE AND DIMENSIONS

SOT223

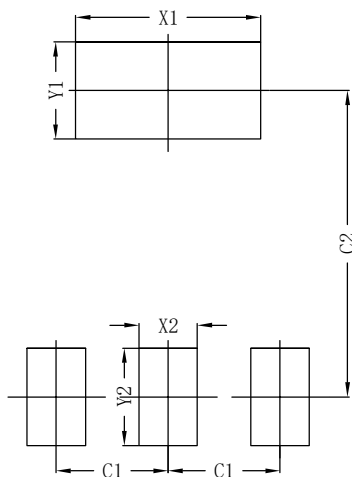


SOT223			
DIM	MIN	NOR	MAX
A	1.50	1.60	1.70
A1	0.00	0.05	0.10
A2	0.80	0.90	1.00
b1	2.90	3.02	3.10
b2	0.60	0.72	0.80
c	0.20	0.27	0.30
D	6.30	6.50	6.70
E	3.30	3.50	3.70
e	4.60BSC		
e1	2.30BSC		
HE	6.80	7.00	7.20
L	0.80	1.00	1.20
L1	1.75(REF)		
θ	0°~8°		
θ_1	8°	10°	12°
All Dimensions in mm			

GENERAL NOTES

1. Top package surface finish $Ra0.4 \pm 0.2\mu m$
2. Bottom package surface finish $Ra0.7 \pm 0.2\mu m$
3. Side package surface finish $Ra0.4 \pm 0.2\mu m$
4. Protrusion or Gate Burrs shall not exceed 0.10mm per side.

8. SOLDERING FOOTPRINT



SOT223	
DIM	(mm)
X1	3.80
Y1	2.00
X2	1.20
Y2	2.00
C1	2.30
C2	6.30