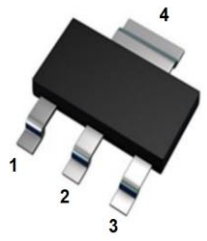
LBTP180Z4TZHG
S-LBTP180Z4TZHG

PNP medium power transistors

1. FEATURES

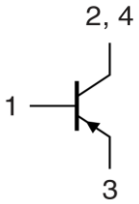
- High current
- Low voltage
- We declare that the material of product compliance with RoHS requirements and Halogen Free.
- S- prefix for automotive and other applications requiring unique site and control change requirements; AEC-Q101 qualified and PPAP capable.



SOT223

2. DEVICE MARKING AND ORDERING INFORMATION

Device	Marking	Shipping
LBTP180Z4TZHG	PB	1000/Tape&Reel



3. MAXIMUM RATINGS(Ta = 25ºC)

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
Base Current	IB	-0.1	A
Peak Base Current	IBM	-0.2	A
Junction and Storage temperature	TJ,Tstg	−55～+150	ºC

4. THERMAL CHARACTERISTICS

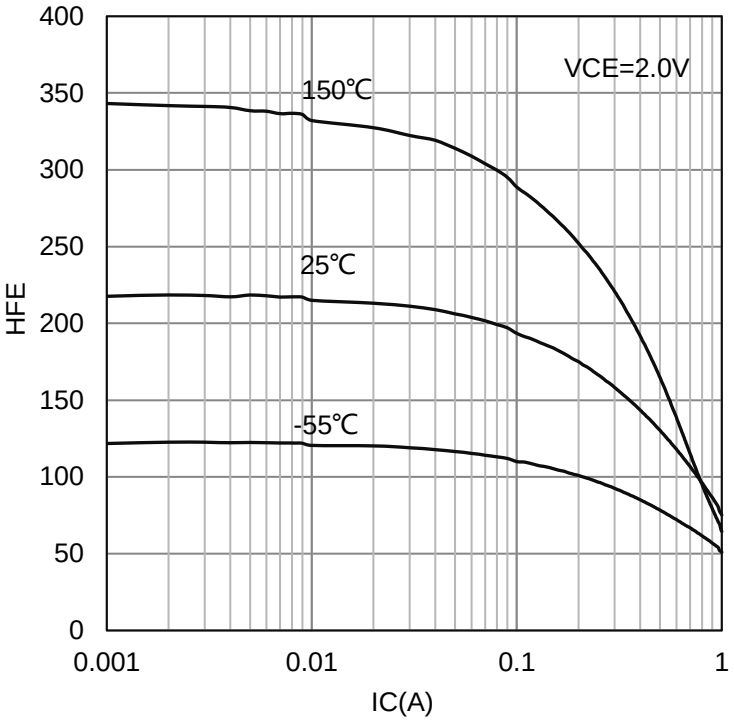
Parameter	Symbol	Limits	Unit
Total Device Dissipation, FR−4 Board (Note 1) @ TA = 25ºC	PD	833	mW
Thermal Resistance, Junction–to–Ambient(Note 1)	RΘJA	150	ºC/W

1. FR–4 = 30.0mm×25.0mm×1.6mm.

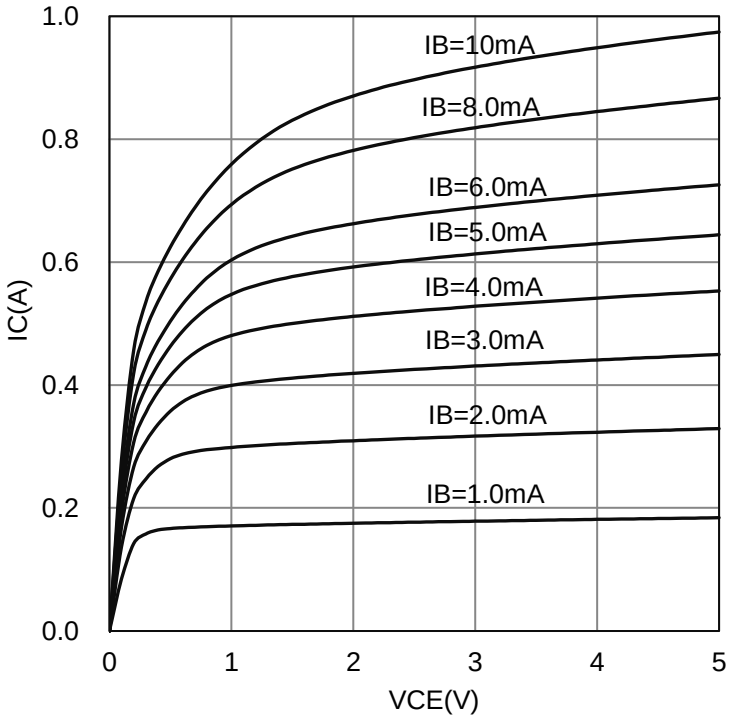
5. ELECTRICAL CHARACTERISTICS (Ta= 25ºC)

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
Collector-Emitter cutoff Current (VCE= -80V,IB=0)	ICEO	-	-	-10	μA
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 Saturation Voltage (IC = −500 mA, IB = −50 mA)	VBE(sat)	-	-	-1	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
Output Capacitance (VCB=−5V,IE=0,f=1.0MHz)	Cobo	-	13.5	-	pF
Input Capacitance (VEB=−0.5V,IC=0,f=1.0MHz)	Cibo	-	85	-	pF

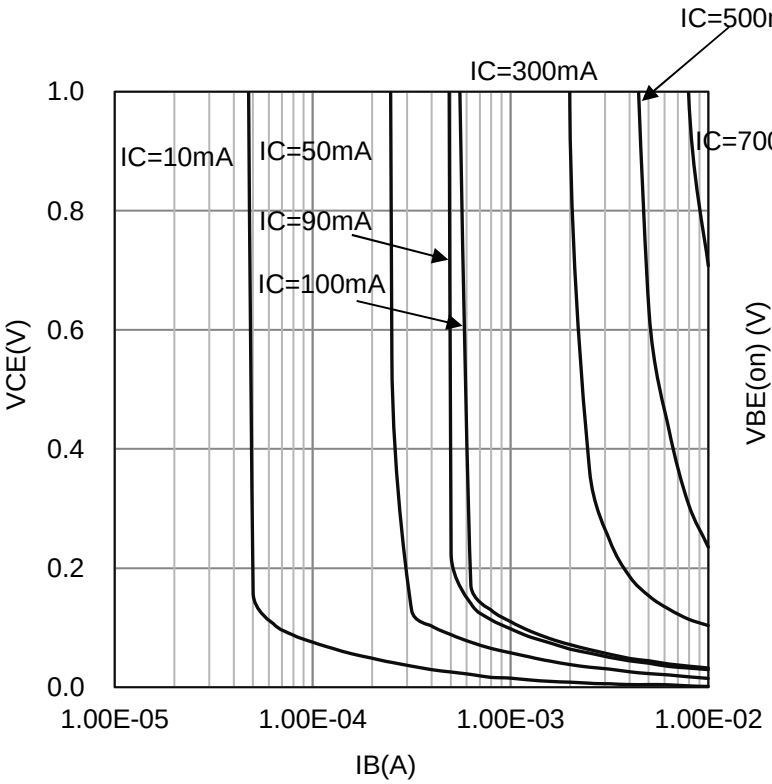
6.ELECTRICAL CHARACTERISTICS CURVES



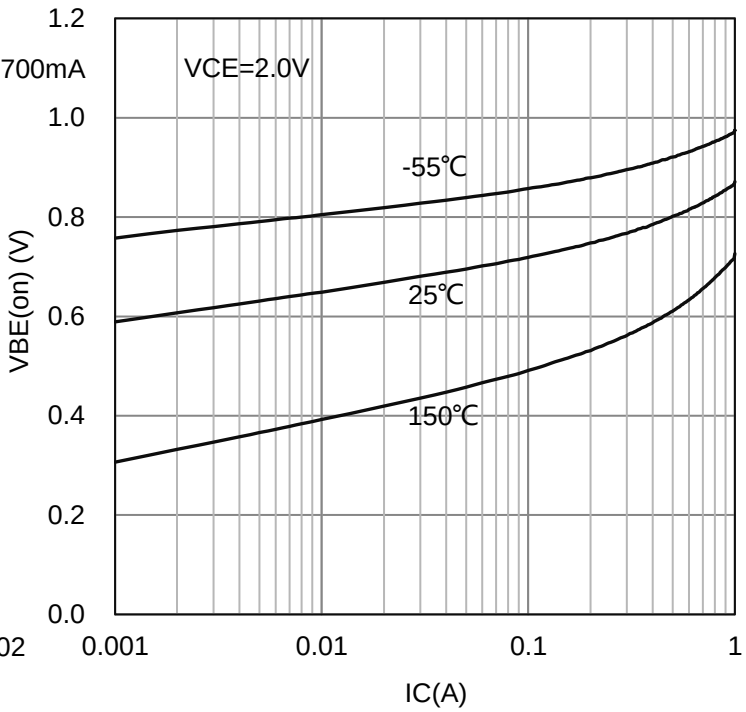
HFE vs. IC



IC vs. VCE

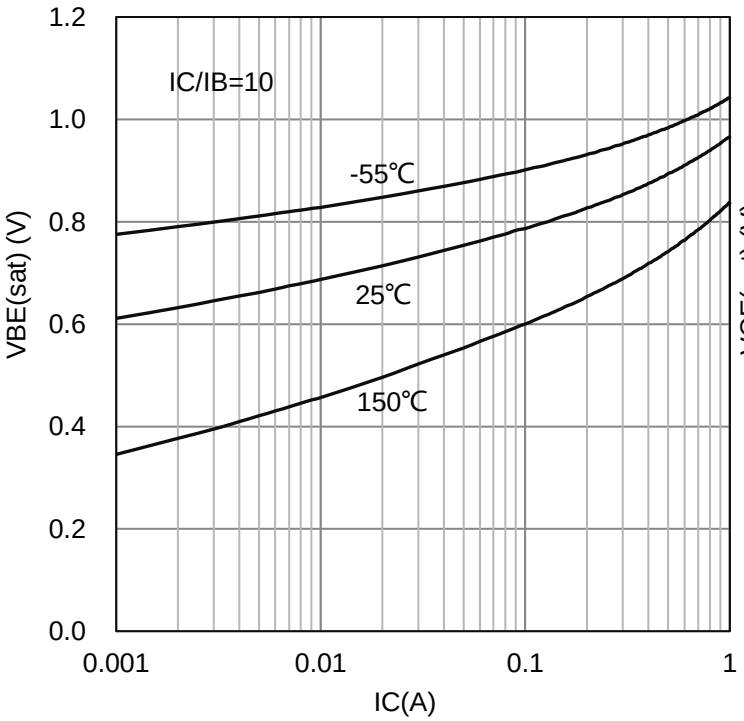


VCE vs. IB

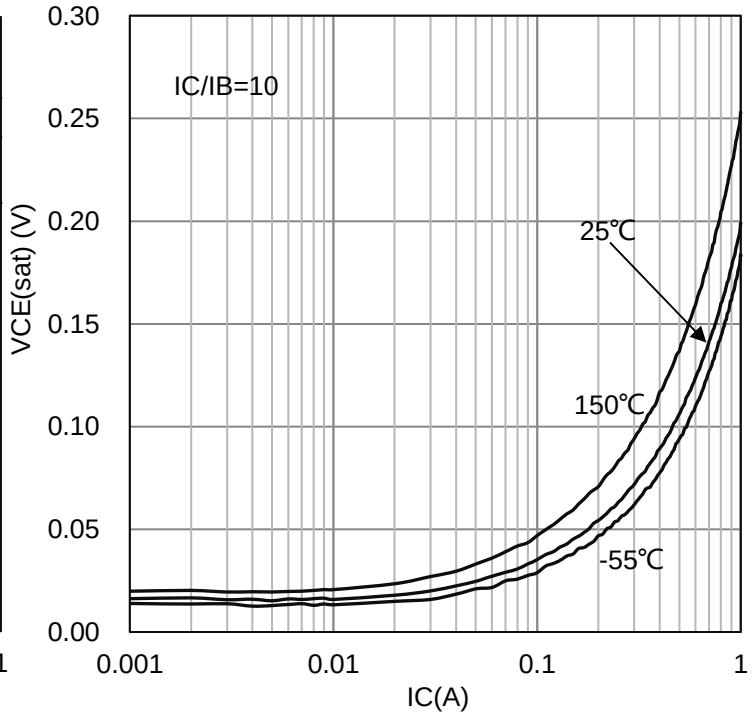


VBE(on) vs. IC

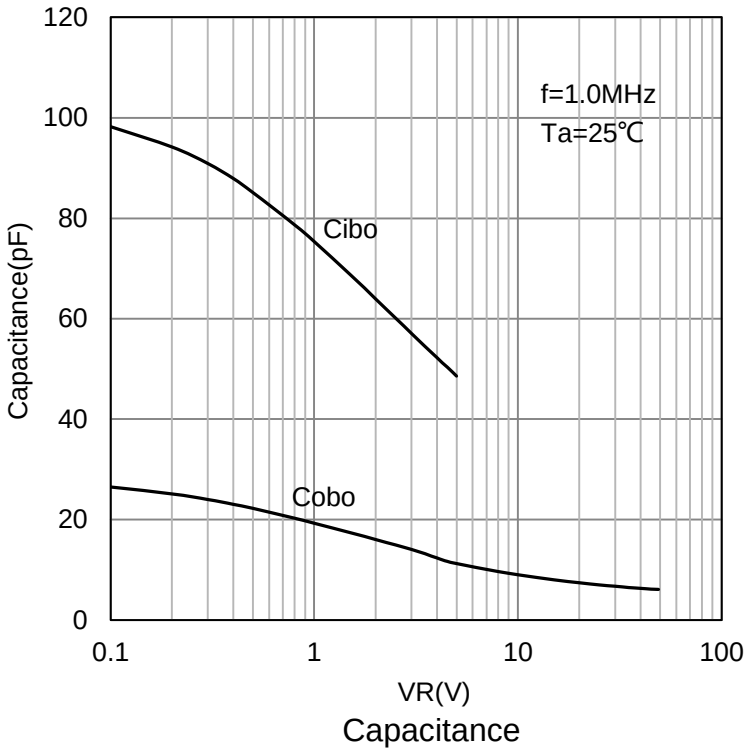
6.ELECTRICAL CHARACTERISTICS CURVES(Con.)



VBE(sat) vs. IC



VCE(sat) vs. IC



Capacitance

7.OUTLINE AND DIMENSIONS

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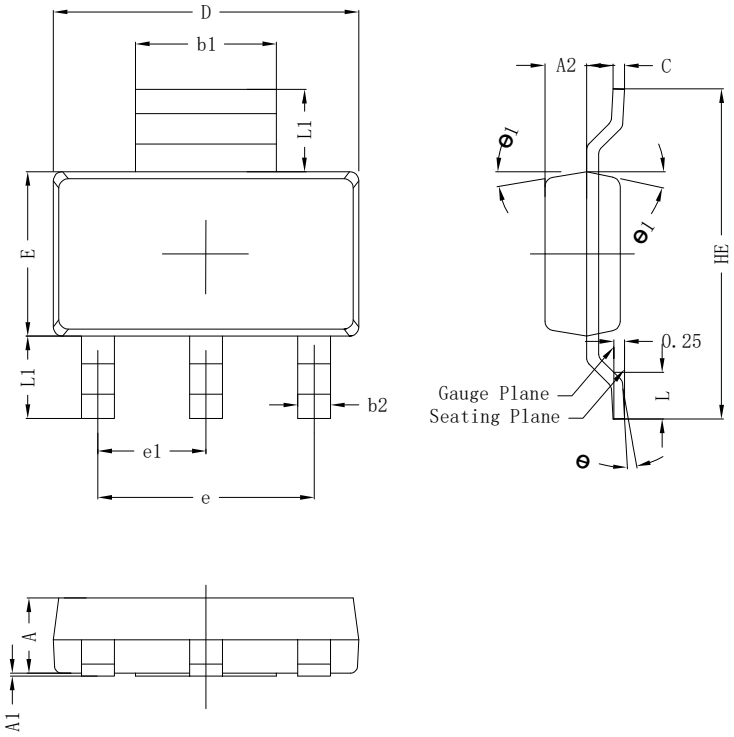

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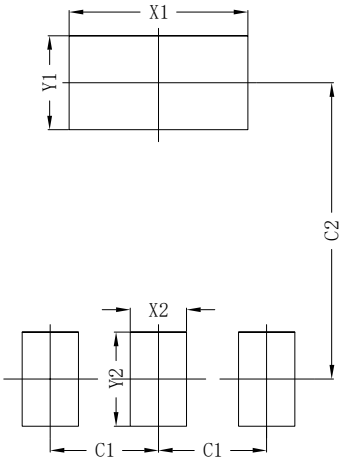
DIM	MIN	NOR	MAX
A	1.50	1.60	1.70
A1	0.00	0.05	0.10
A2	0.80	0.90	1.00
b1	2.90	3.02	3.10
b2	0.60	0.72	0.80
c	0.20	0.27	0.35
D	6.30	6.50	6.70
E	3.30	3.50	3.70
e	4.60BSC		
e1	2.30BSC		
HE	6.80	7.00	7.20
L	0.80	1.00	1.20
L1	1.75(REF)		
θ	0°~8°		
θ1	8°	10°	12°
All Dimensions in mm			

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
4. Protrusion or Gate Burrs shall not exceed 0.10mm per side.

8.SOLDERING FOOTPRINT



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

DISCLAIMER

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