

LMBT493PELT1G

S-LMBT493PELT1G

General Purpose Transistors PNP Silicon

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
LMBT493PELT1G	LPE	3000/Tape&Reel
LMBT493PELT3G	LPE	10000/Tape&Reel

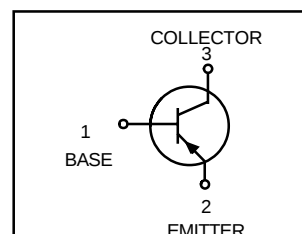
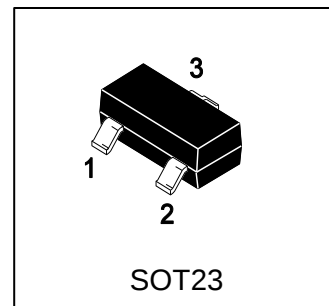
3. MAXIMUM RATINGS(Ta = 25°C)

Parameter	Symbol	Limits	Unit
Collector-Emitter Voltage	VCEO	-100	V
Collector-Base voltage	VCBO	-120	V
Emitter-Base Voltage	VEBO	-5	V
Collector current	IC	-1000	mA

4. THERMAL CHARACTERISTICS

Parameter	Symbol	Limits	Unit
Total Device Dissipation, FR-4 Board (Note 1) @ TA = 25°C Derate above 25°C	PD	500 4	mW mW/°C
Thermal Resistance, Junction-to-Ambient	ROJA	250	°C/W
Junction and Storage temperature	TJ,Tstg	-55~+150	°C

1. FR-4 = 30mmX25mmX1.6mm.

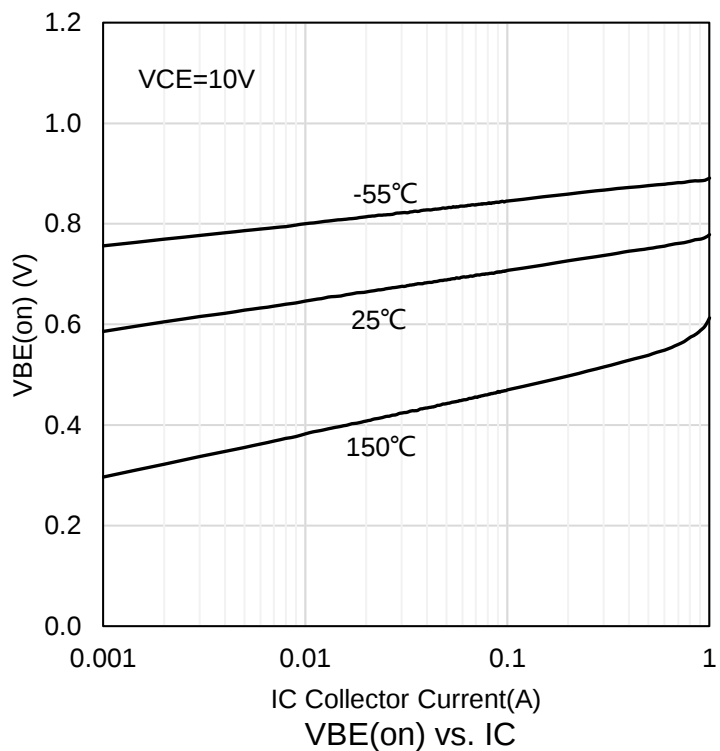
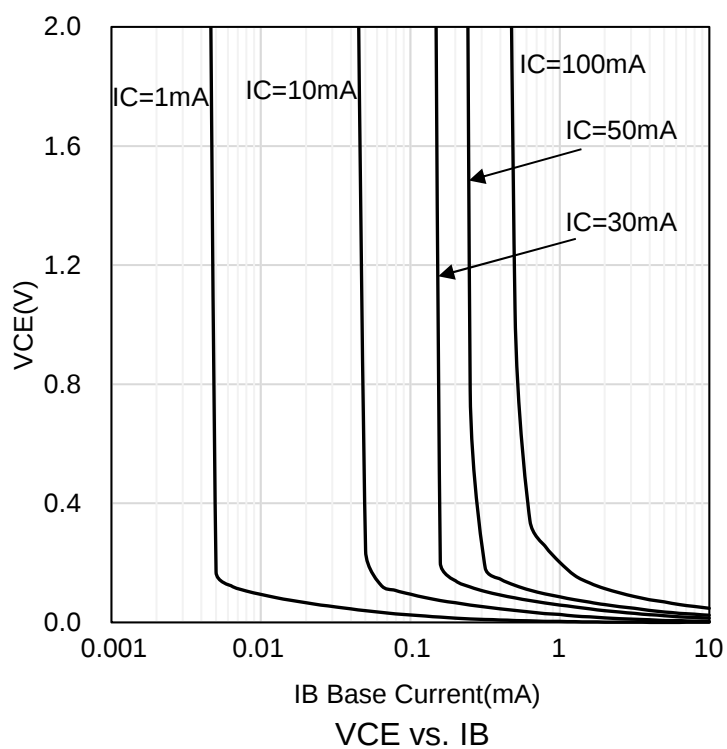
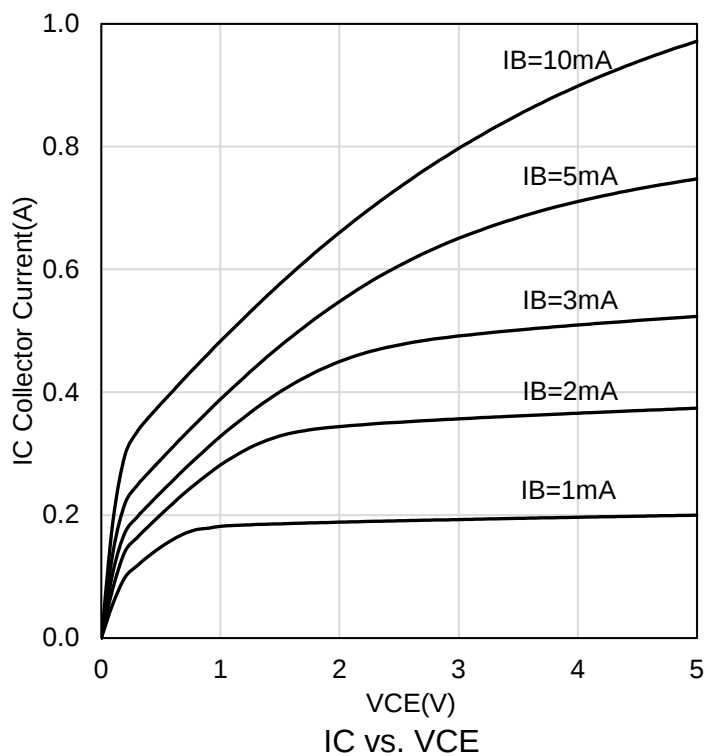
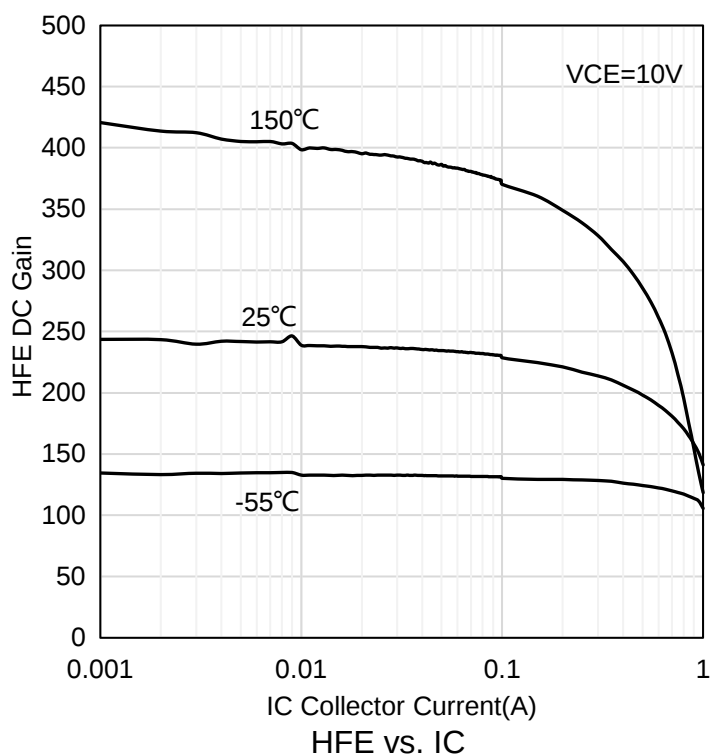


5. ELECTRICAL CHARACTERISTICS (Ta= 25°C)

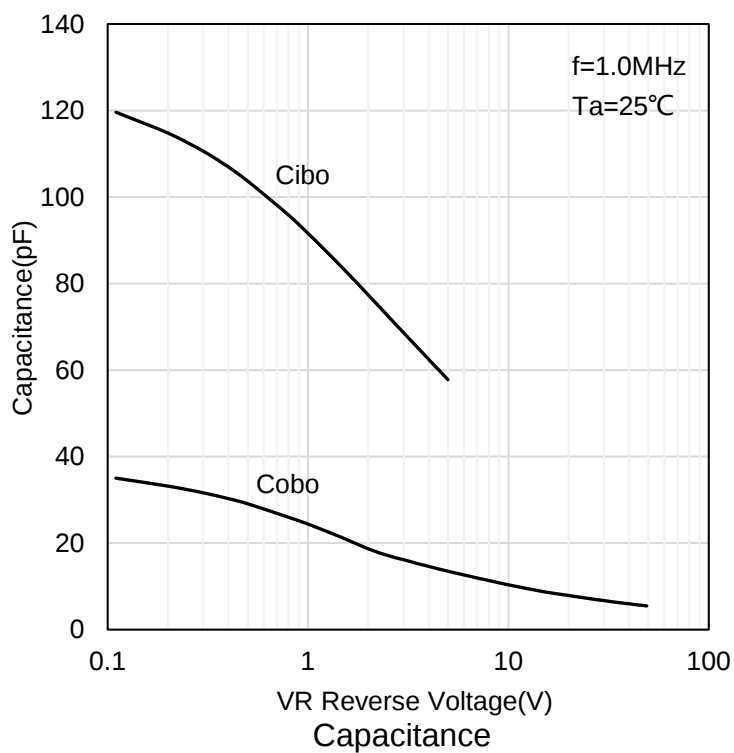
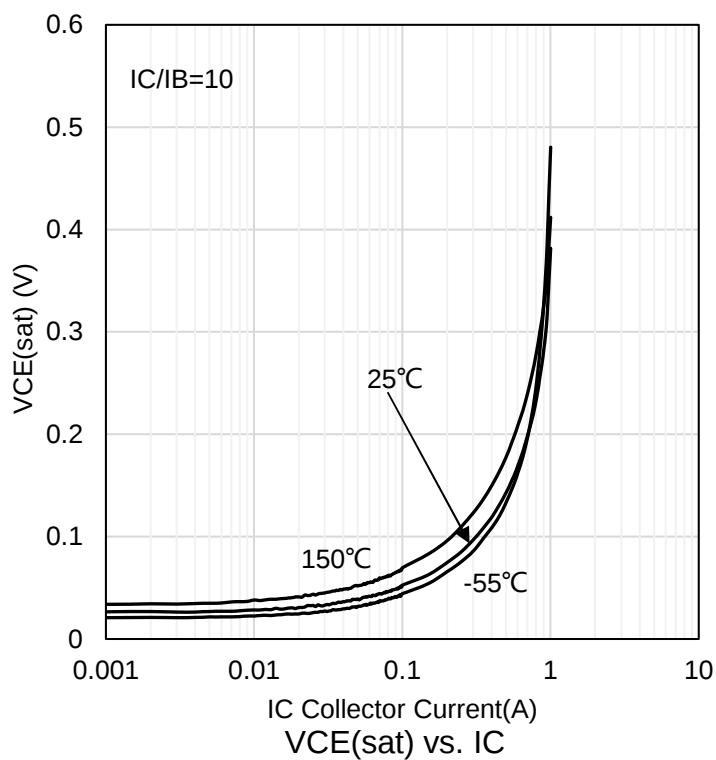
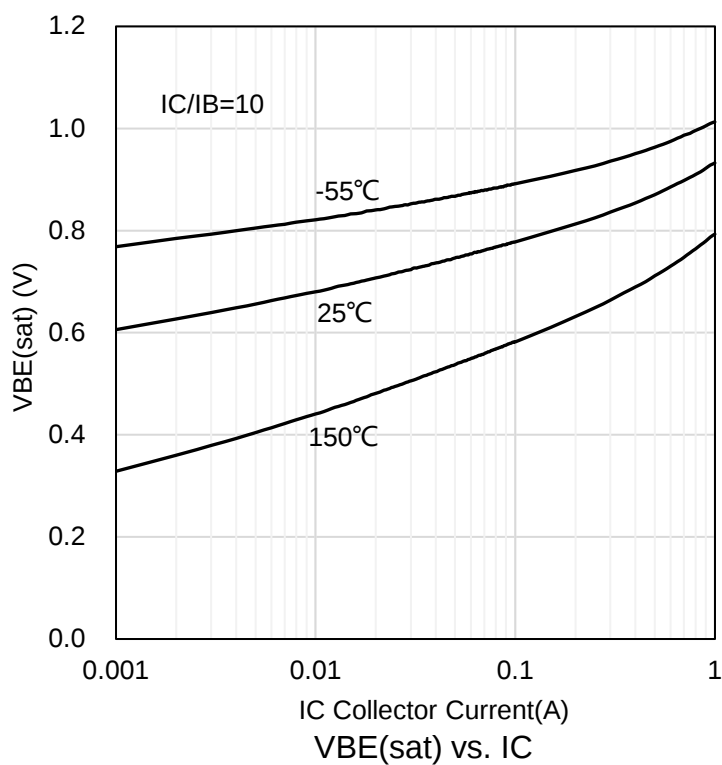
Characteristic	Symbol	Min.	Typ.	Max.	Unit
Collector-Base Breakdown voltage (IC = -100μA)	V(BR)CBO	-120	-	-	V
Collector-Emitter Breakdown Voltage (IC =-10mA)	V(BR)CEO	-100	-	-	V
Emitter-Base Breakdown Voltage (IE = -100μA)	V(BR)EBO	-5	-	-	V
Collector Cutoff Current (VCB = -100 V)	ICBO	-	-	-100	nA
Collector cut-off current (VCES =-100V, IE =0)	ICES	-	-	-100	nA
Emitter cut-off current (VEB =-4V, IC =0)	IEBO	-	-	-100	nA
DC Current Gain (VCE =-10V, IC =-1mA) (VCE =-10V, IC =-250mA) (VCE =-10V, IC =-0.5A) (VCE =-10V, IC =-1A)	HFE	100 100 60 20		300	
Collector-Emitter Saturation Voltage (IC =-500mA, IB =-50mA) (IC =-1A, IB =-100mA)	VCE(S)	- -	- -	-0.3 -0.6	V
Base-emitter saturation voltage (IC =-1A, IB =-100mA)	VBE(sat)	-	-	-1.15	V
Base-emitter voltage (VCE =-10V, IC =-1A)	VBE	-	-	-1	V
Transition frequency (VCE =-10V, IC =-50mA, f=100MHz)	fT	150	-	-	MHz
Collector output capacitance (VCB =-10V, IE =0, f=1MHz)	Cob	-	10	-	pF

2.Pulse Test: Pulse Width ≤300 μs, Duty Cycle ≤2.0%.

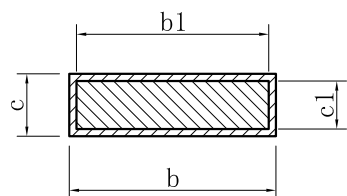
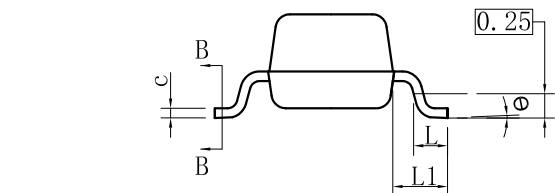
6.ELECTRICAL CHARACTERISTICS CURVES



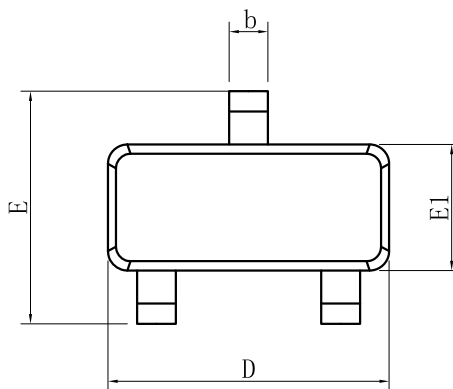
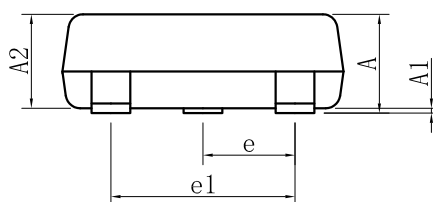
6.ELECTRICAL CHARACTERISTICS CURVES(Con.)



7.OUTLINE AND DIMENSIONS



SECTION B-B

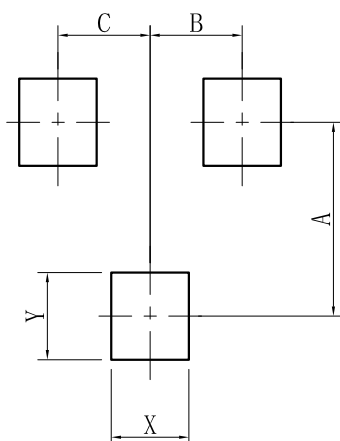


SOT23			
DIM	MIN	NOR	MAX
A	0.89	-	1.12
A1	0.01	-	0.10
A2	0.88	0.95	1.02
b	0.30	-	0.50
b1	0.30	0.40	0.45
c	0.08	-	0.20
c1	0.08	0.10	0.16
D	2.80	2.90	3.04
E	2.10	-	2.64
E1	1.20	1.30	1.40
e	0.95BSC		
e1	1.90BSC		
L	0.40	0.46	0.60
L1	0.54REF		
θ	0°	-	8°
All Dimensions in mm			

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

8.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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