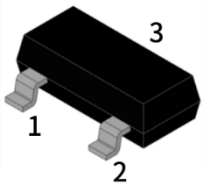
MMBT3906LST1

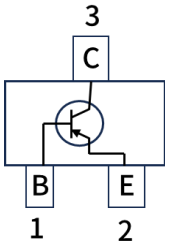
General Purpose Transistors PNP

1. FEATURES

- The material of product compliance with RoHS requirements and Halogen Free.
- High Stability and High Reliability.
- Complementary to MMBT3904(NPN)



SOT23 (TO-236)



2. Mechanical Data

- SOT-23 Small Outline Plastic Package.
- Tin plated leads, solderable per J-STD-002 and JESD22-B102.
- Marking: 2A

3. ORDERING INFORMATION

Device	Min Pack	Inner Box	Outer Carton	Reel
MMBT3906LST1	3000	45000	180000	7 inch

4. MAXIMUM RATINGS (Ta = 25°C)

Parameter	Symbol	Limit	Unit
Collector-Emitter Voltage	VCEO	-40	V
Collector-Base Voltage	VCBO	-40	V
Emitter-Base Voltage	VEBO	-5	V
Collector Current--Continuous	Ic	-200	mA

5. THERMAL CHARACTERISTICS

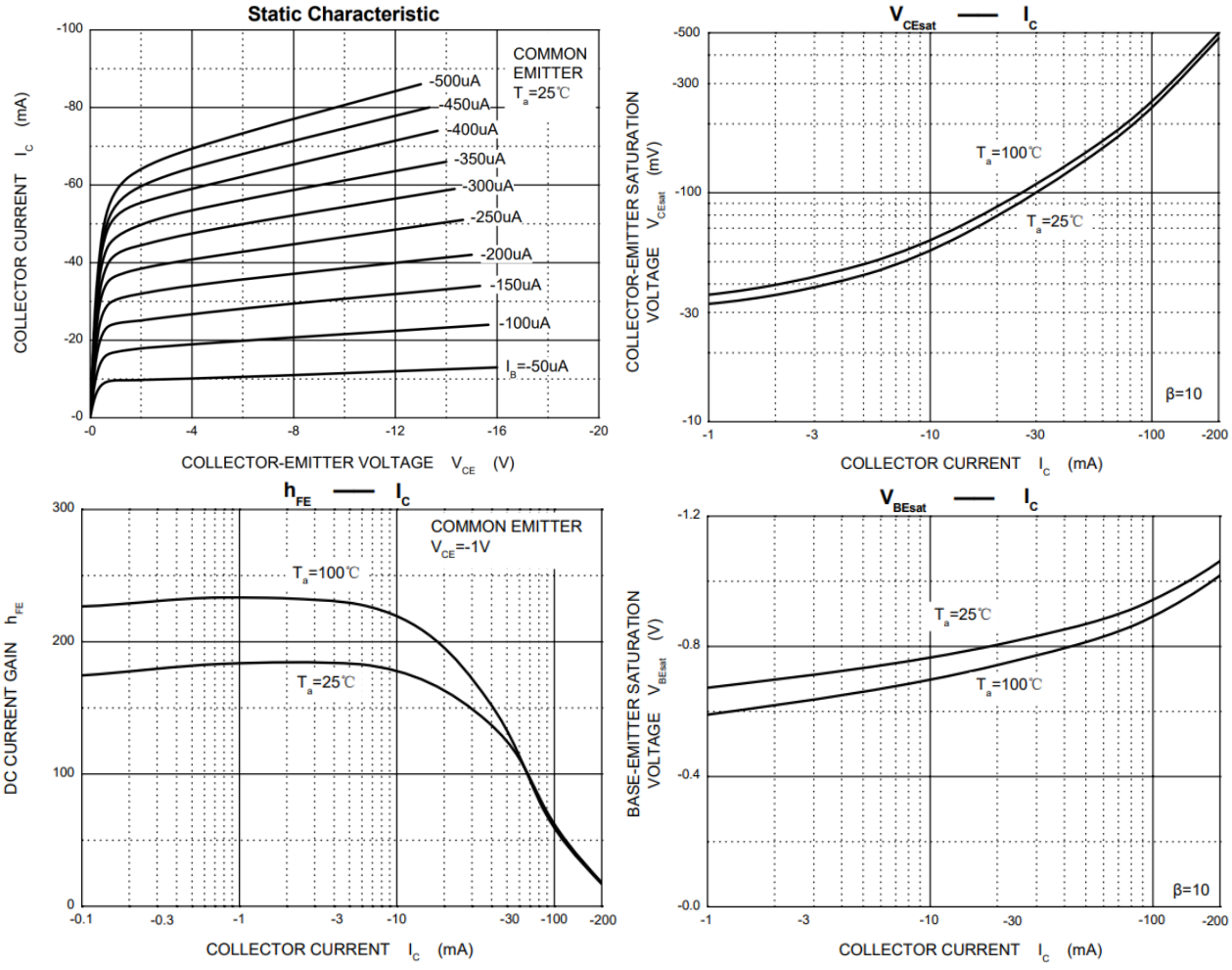
Parameter	Symbol	Limit	Unit
Collector Dissipation	PC	200	mW
Junction Temperature and Storage Temperature Range	TJ ,TSTG	-55~150	°C
Thermal Resistance from Junction to Ambient	RΘJA	625	°C/W

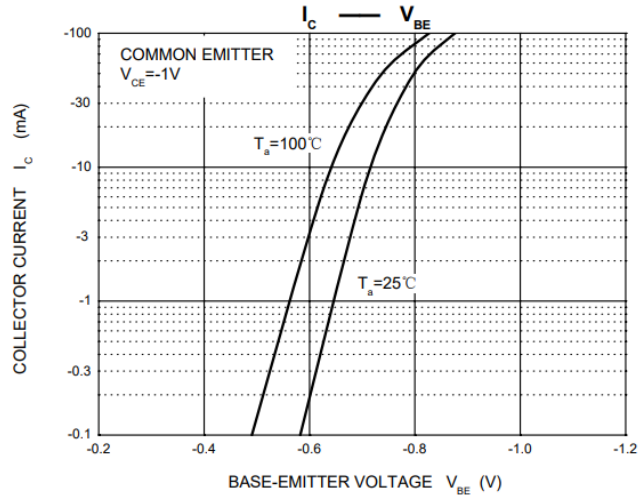
6.ELECTRICAL CHARACTERISTICS (Ta= 25°C unless otherwise specified)

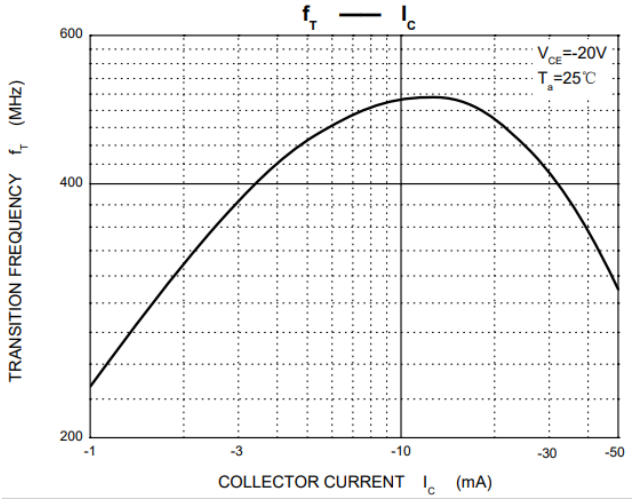
Parameter	Symbol	Condition	Min	Max	Unit

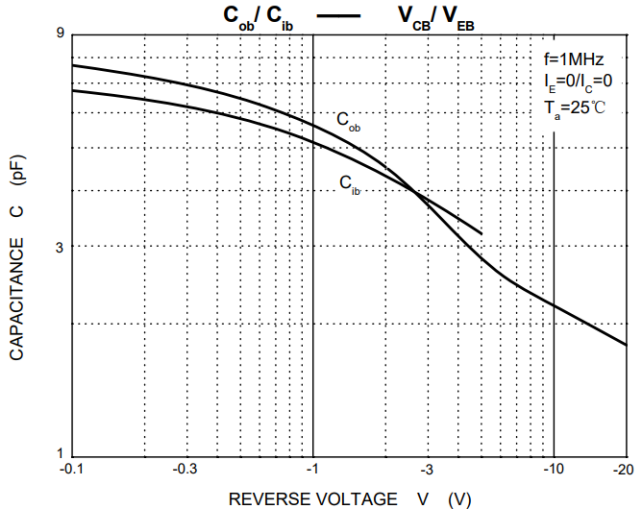
Collector–Emitter Breakdown Voltage	V(BR)CEO	IC = -1 mA, IB = 0	-40		V
Collector–Base Breakdown Voltage	V(BR)CBO	IC = -10 μA, IE = 0	-60		V
Emitter–Base Breakdown Voltage	V(BR)EBO	IE = -10 μA, IC = 0	-6		V
Collector-Emitter Cutoff Current S	ICES	VCE = -30 V, VEB = -3V		-50	nA
Collector Cutoff Current	ICBO	VCB= -30 V, IE=0		-100	nA
Emitter cut-off current	IEBO	VEB= -5V, IC=0		-100	nA
DC current gain	hFE(1)	IE = -10 mA, VCE = -1 V	30		
DC current gain	hFE(2)	IE = -50 mA, VCE = -1 V	60		
DC current gain	hFE(3)	IE = -100 mA, VCE = -2 V	100	300	
Collector-Emitter Saturation voltage	VCE(sat)	IC = -50 mA, IB = -5 mA		-0.3	V
Base–Emitter Saturation Voltage	VBE(sat)	IC = -50 mA, IB = -5 mA		-0.95	V
Transition frequency	fT	IC = -10mA, VCE= -20V, f = 100MHz	300		MHz
Delay Time	Td	VCC = -3 V, VBE=0.5V, IC = -10mA, IB1 = -1 mA		35	ns
Rise Time	Tr			35	ns
Storage Time	Ts	VCC = -3.0 V, IC = -10 mA, IB1 = IB2 = -1 mA		225	ns
Fall Time	Tf			75	ns

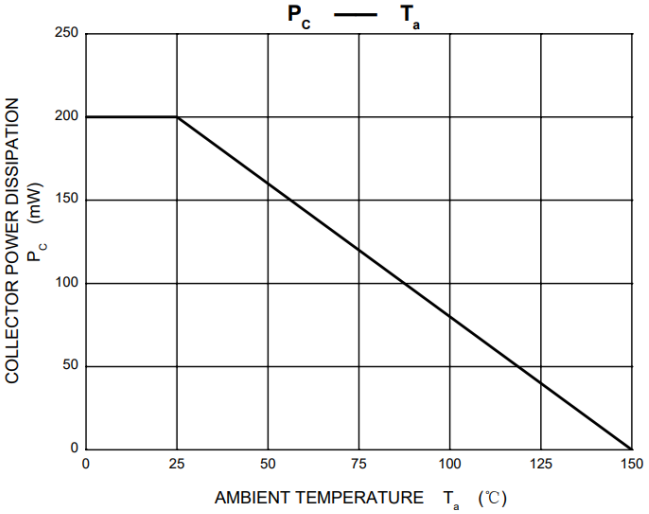
7.ELECTRICAL CHARACTERISTICS CURVES



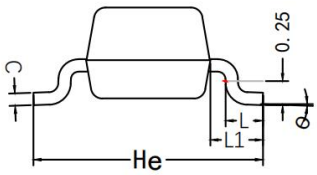


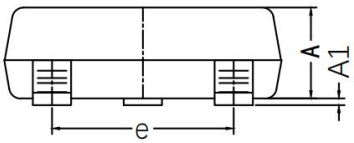


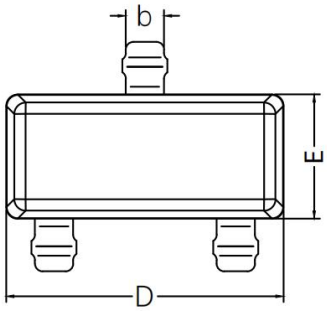




6. OUTLINE AND DIMENSIONS

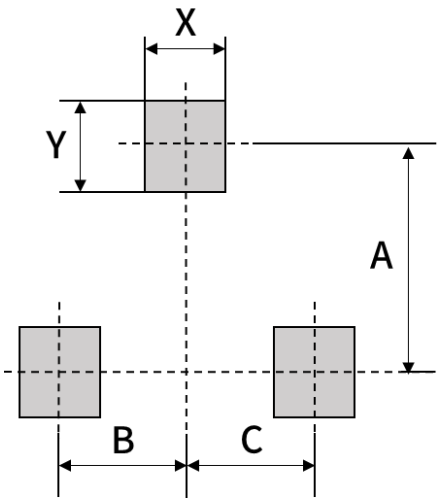






DIM	MIN	NOR	MAX
A	0.85	0.95	1.05
A1	0.01	0.06	0.10
b	0.36	0.44	0.52
c	0.09	0.13	0.18
D	2.80	2.90	3.10
E	1.20	1.30	1.40
e	1.78	1.90	2.04
L	0.30	0.40	0.50
L1	0.35	0.50	0.65
He	2.10	2.35	2.50
θ	0°	-	10°
All Dimensions in mm			

7. SUGGESTED PAD LAYOUT



SOT23		
DIM	mm	inch
A	2.00	0.079
B	0.95	0.037
C	0.95	0.037
X	0.80	0.031
Y	0.90	0.035

8. DISCLAIMER

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