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MMBT5401 TRANSISTOR (PNP)

SOT-23 Plastic-Encapsulate Transistors

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客户确认：

公司签章：

部门	工程部	品保部	采购部
签名			
日期			



SOT-23 Plastic-Encapsulate Transistors

MMBT5401 TRANSISTOR (PNP)

FEATURES

- Complementary to MMBT5551
- Ideal for medium power amplification and switching

MARKING: 2L

MAXIMUM RATINGS (T_A=25°C unless otherwise noted)

Symbol Para	meter	Value	Units
V _{CB0}	Collector-Base Voltage	-160	V
V _{CEO}	Collector-Emitter Voltage	-150	V
V _{EBO}	Emitter-Base Voltage	-5	V
I _C	Collector Current -Continuous	-0.6	A
P _C	Collector Power Dissipation	0.3	W
T _j	Junction Temperature	150	°C
T _{stg}	Storage Temperature	-55-150	°C



ELECTRICAL CHARACTERISTICS (T_{amb}=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	MAX	UNIT
Collector-base breakdown voltage	V _{(BR)CBO}	I _C = -100μA, I _E =0	-160		V
Collector-emitter breakdown voltage	V _{(BR)CEO}	I _C = -1mA, I _B =0	-150		V
Emitter-base breakdown voltage	V _{(BR)EBO}	I _E = -10μA, I _C =0	-5		V
Collector cut-off current	I _{CBO}	V _{CB} =-120 V, I _E =0		-0.1	μA
Emitter cut-off current	I _{EBO}	V _{EB} =-4V, I _C =0		-0.1	μA
DC current gain	h _{FE1}	V _{CE} = -5V, I _C = -1mA	80		
	h _{FE2}	V _{CE} = -5V, I _C =-10mA	100	300	
	h _{FE3}	V _{CE} = -5V, I _C =-50mA	50		
Collector-emitter saturation voltage	V _{CE(sat)}	I _C =-50 mA, I _B = -5mA		-0.5	V
Base-emitter saturation voltage	V _{BE(sat)}	I _C = -50 mA, I _B = -5mA		-1	V
Transition frequency	f _T	V _{CE} = -5V, I _C = -10mA f=30MHz	100		MHz

Typical Characteristics

MMBT5401

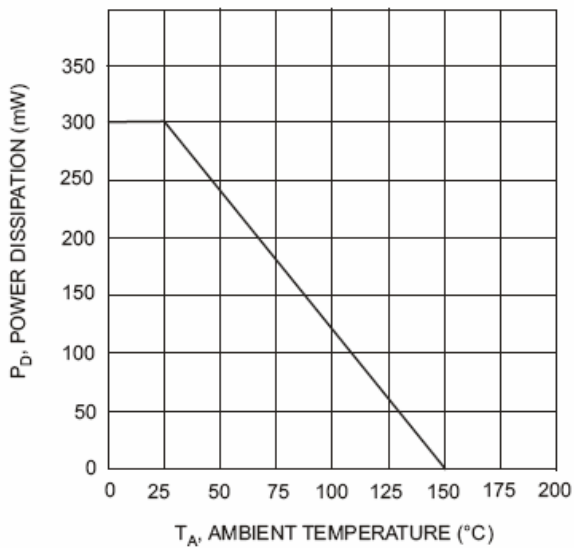


Fig. 1, Max Power Dissipation vs Ambient Temperature

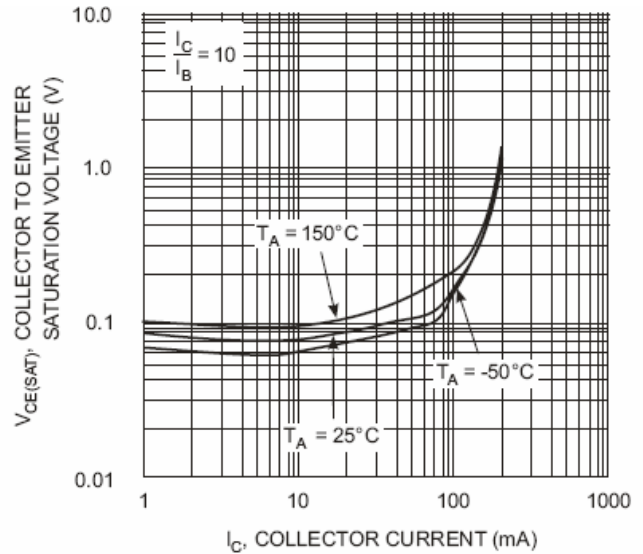


Fig. 2, Collector Emitter Saturation Voltage vs. Collector Current

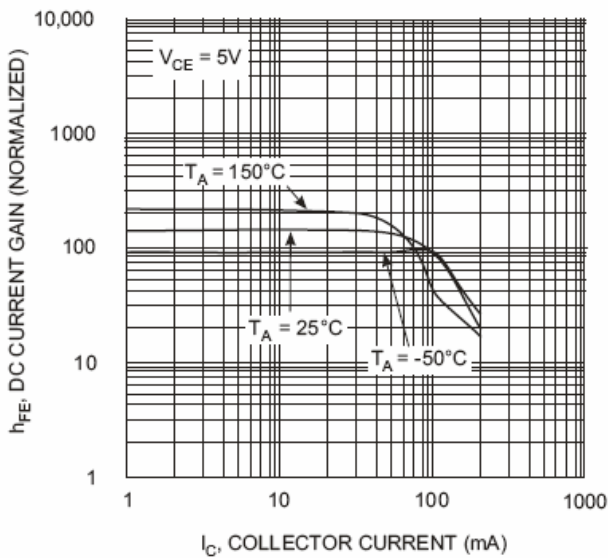


Fig. 3, DC Current Gain vs. Collector Current

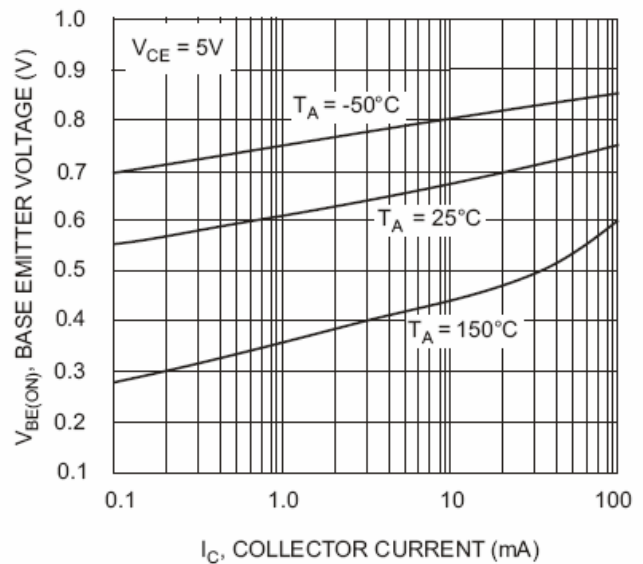


Fig. 4, Base Emitter Voltage vs. Collector Current

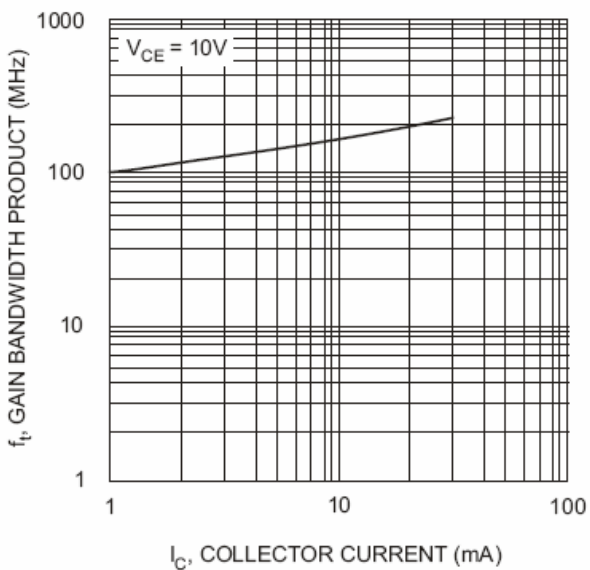


Fig. 5, Gain Bandwidth Product vs Collector Current

SOT-23 Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.900	1.150	0.035	0.045
A1	0.000	0.100	0.000	0.004
A2	0.900	1.050	0.035	0.041
b	0.300	0.500	0.012	0.020
c	0.080	0.150	0.003	0.006
D	2.800	3.000	0.110	0.118
E	1.200	1.400	0.047	0.055
E1	2.250	2.550	0.089	0.100
e	0.950 TYP		0.037 TYP	
e1	1.800	2.000	0.071	0.079
L	0.550 REF		0.022 REF	
L1	0.300	0.500	0.012	0.020
θ	0°	8°	0°	8°

SOT-23 Suggested Pad Layout



Note:

1. Controlling dimension: in millimeters.
2. General tolerance: $\pm 0.05\text{mm}$.
3. The pad layout is for reference purposes only.