MMBT5401

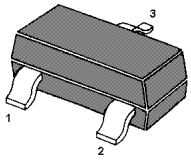
TRANSISTOR (PNP)

FEATURES

Complementary to MMBT5551

Ideal for medium power amplification and switching

SOT-23



1. BASE
2. EMITTER
3. COLLECTOR

MAXIMUM RATINGS (T_A=25℃ unless otherwise noted)

Symbol	Parameter	Value	Units
V_{CBO}	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	℃
T_{stg}	Storage Temperature	-55-150	℃

ELECTRICAL CHARACTERISTICS (Tamb=25℃ 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	100		MHz

Typical Characteristics

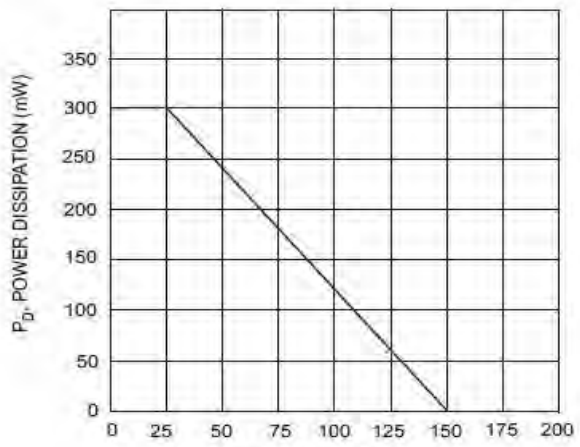


Fig. 1, Max Power Dissipation vs Ambient Temperature

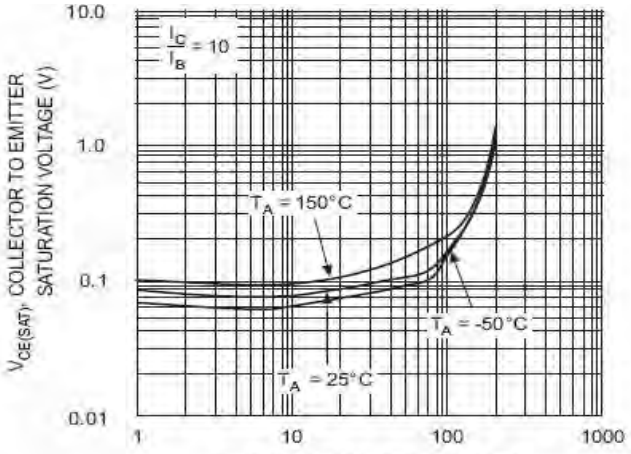


Fig. 2, Collector Emitter Saturation Voltage vs. Collector Current

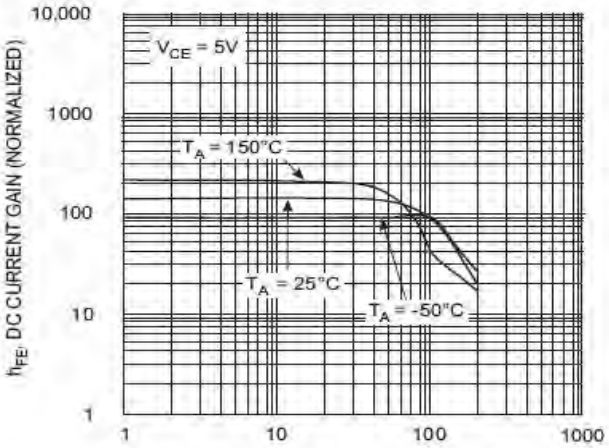


Fig. 3, DC Current Gain vs. Collector Current

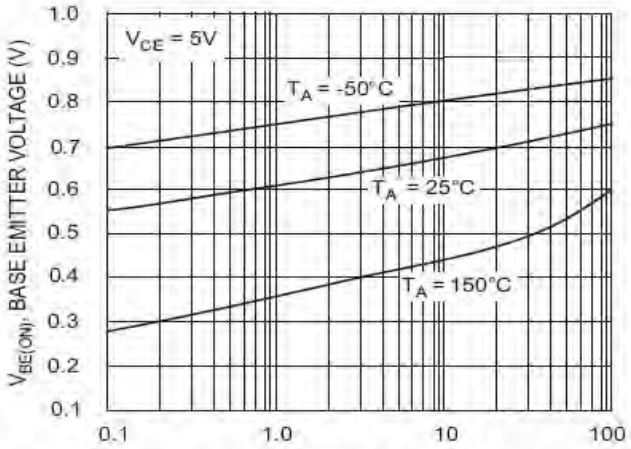


Fig. 4, Base Emitter Voltage vs. Collector Current

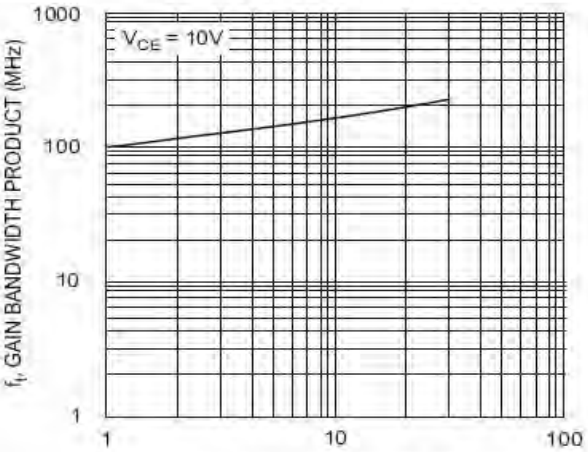
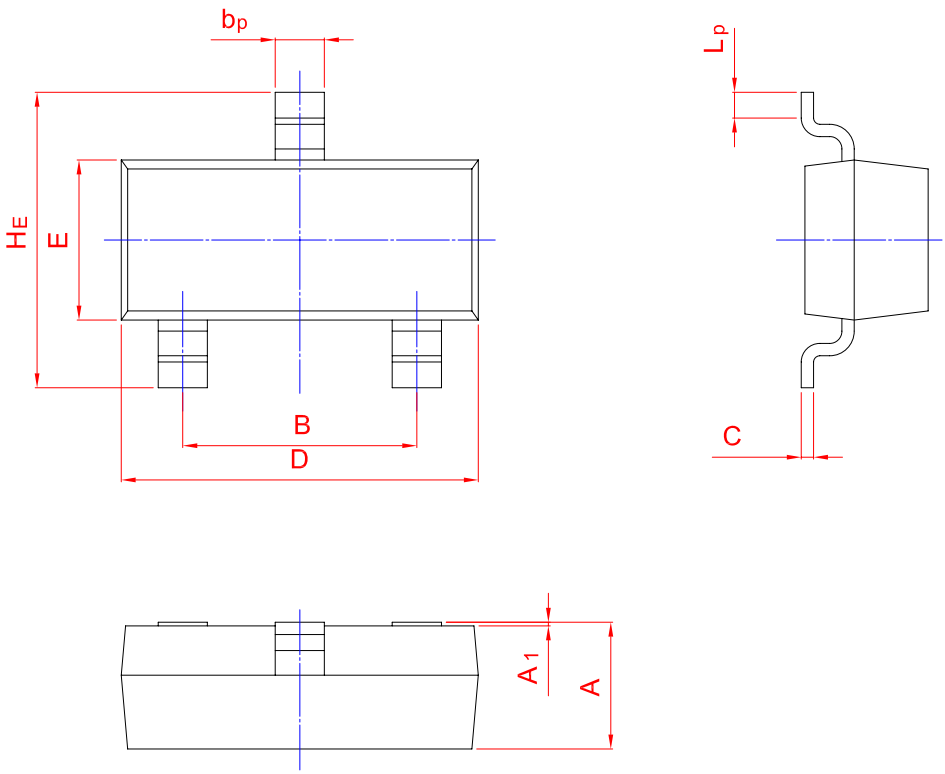


Fig. 5, Gain Bandwidth Product vs Collector Current

PACKAGE OUTLINE

Plastic surface mounted package; 3 leads **SOT-23**



UNIT	A	B	bp	C	D	E	HE	A1	Lp
mm	1.40 0.95	2.04 1.78	0.50 0.35	0.19 0.08	3.10 2.70	1.65 1.20	3.00 2.20	0.100 0.013	0.50 0.20