MMBT5401 (PNP)

FEATURES

Complementary to MMBT5551

Ideal for medium power amplification and switching

MARKING: 2L

1. BASE
2. EMITTER
3. COLLECTO

SOT-23

MAXIMUM RATINGS (TA=25℃ unless otherwise noted)

Parameter	Symbol	Value	Unit
Collector-Base Voltage	V_{CBO}	-160	V
Collector-Emitter Voltage	V_{CEO}	-150	V
Emitter-Base Voltage	V_{EBO}	-5	V
Collector Current -Continuous	I_C	-0.6	A
Collector Power Dissipation	P_C	0.3	W
Junction Temperature	T_J	150	℃
Storage Temperature	Tstg	-55 to +150	℃

ELECTRICAL CHARACTERISTICS (Tamb=25℃ unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Max	Unit
Collector-base breakdown voltage	V_{CBO}	I_C= -100μA, I_E=0	-160		V
Collector-emitter breakdown voltage	V_{CEO}	I_C= -1mA, I_B=0	-150		V
Emitter-base breakdown voltage	V_{EBO}	I_E= -10μA, I_C=0	-5		V
Collector cut-off current	I_{CB}	V_{CB}=-120 V , I_E=0		-0.1	μA
Emitter cut-off current	I_{EB}	V_{EB}=-4V , I_C=0		-0.1	μA
DC current gain	hFE1	V_{CE}= -5V, I_C= -1mA	80		
	hFE2	V_{CE}= -5V, I_C=-10mA	100	300	
	hFE3	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=		-1	V
Transition frequency	fT	V_{CE}= -5V, I_C= -10mA	100		MHz

MMBT5401 Typical Characteristics

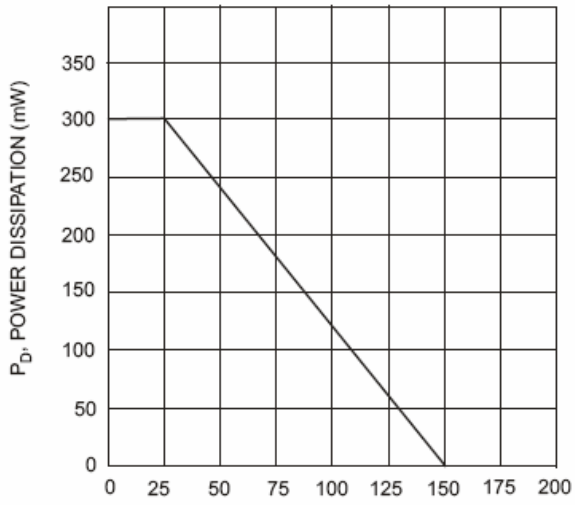

Fig. 1, Max Power Dissipation vs Ambient Temperature

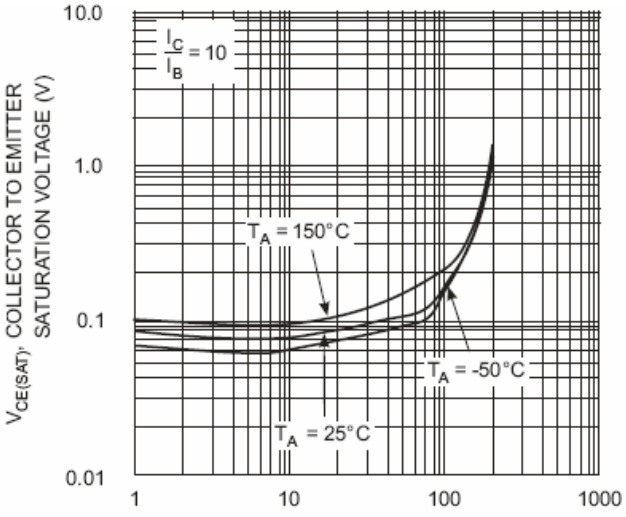

Fig. 2, Collector Emitter Saturation Voltage vs. Collector Current

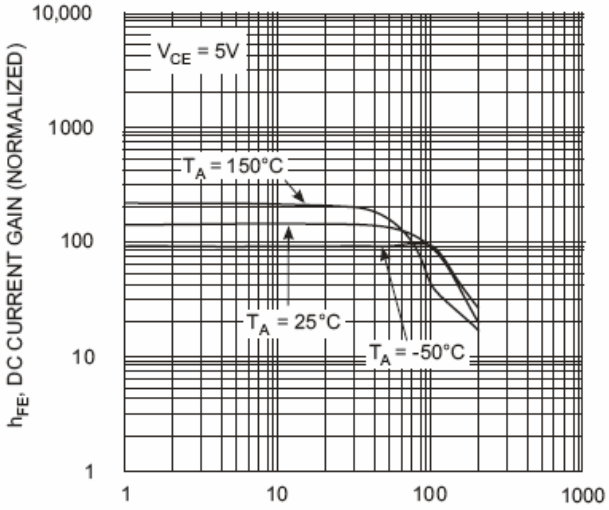

Fig. 3, DC Current Gain vs. Collector Current

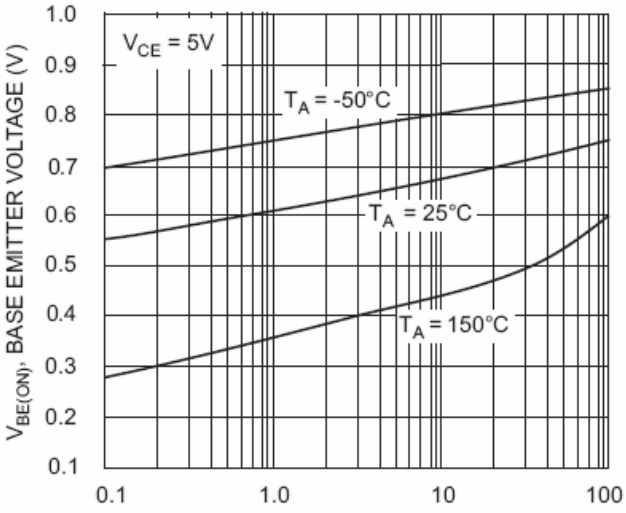

Fig. 4, Base Emitter Voltage vs. Collector Current

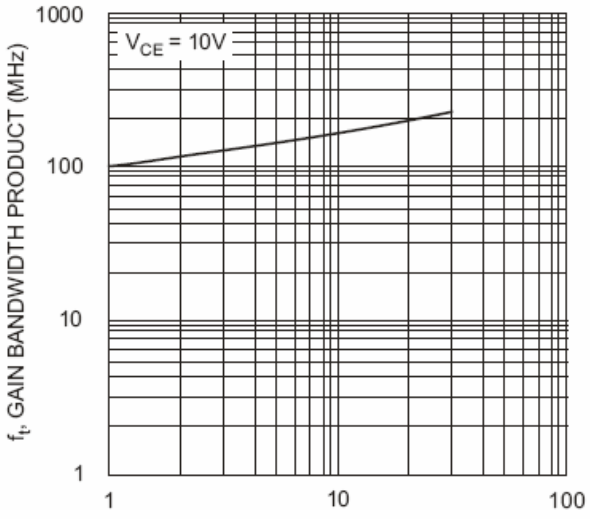

Fig. 5, Gain Bandwidth Product vs Collector Current