

FEATURES

Complementary to MMBT5551

Ideal for medium power amplification and switching

MARKING: 2L

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	T_{stg}	-55 to +150	℃

MMBT5401 (PNP)



ELECTRICAL CHARACTERISTICS (Tamb=25℃ unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Max	Unit
Collector-base breakdown voltage	V_{CBO}	$I_C = -100\mu A, I_E = 0$	-160		V
Collector-emitter breakdown voltage	V_{CEO}	$I_C = -1mA, I_B = 0$	-150		V
Emitter-base breakdown voltage	V_{EBO}	$I_E = -10\mu A, I_C = 0$	-5		V
Collector cut-off current	I_{CB}	$V_{CB} = -120V, I_E = 0$		-0.1	μA
Emitter cut-off current	I_{EB}	$V_{EB} = -4V, I_C = 0$		-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	$V_{CE(sat)}$	$I_C = -50mA, I_B = -5mA$		-0.5	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C = -50mA, I_B =$		-1	V
Transition frequency	f_T	$V_{CE} = -5V, I_C = -10mA$	100		MHz

MMBT5401 Typical Characteristics

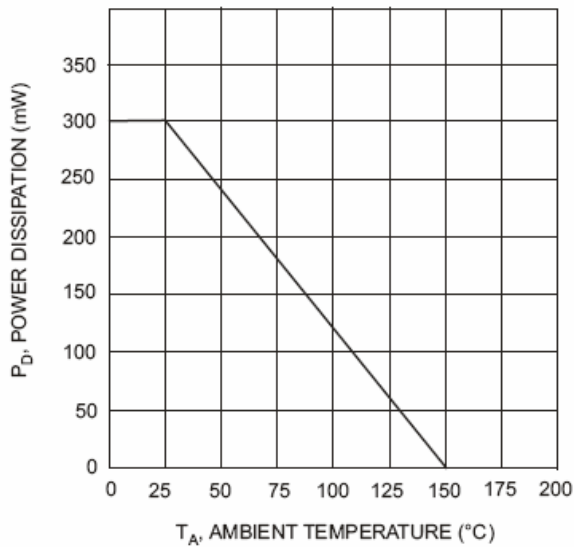


Fig. 1, Max Power Dissipation vs Ambient Temperature

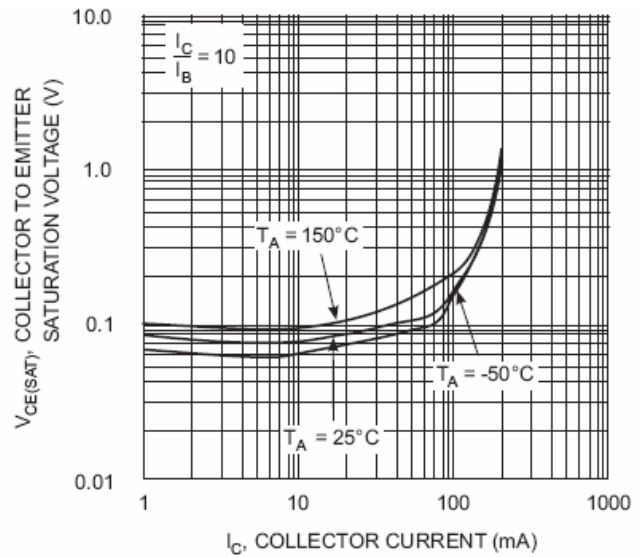


Fig. 2, Collector Emitter Saturation Voltage vs. Collector Current

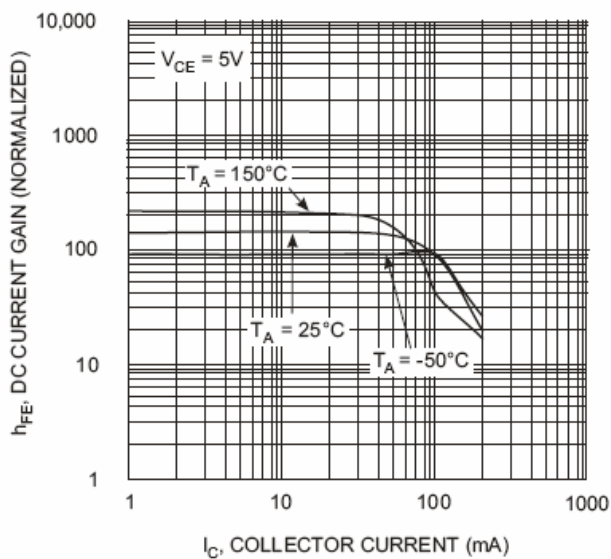


Fig. 3, DC Current Gain vs. Collector Current

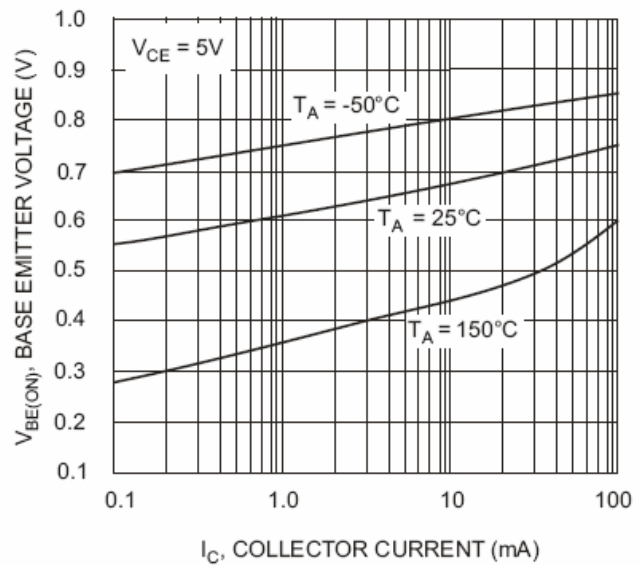


Fig. 4, Base Emitter Voltage vs. Collector Current

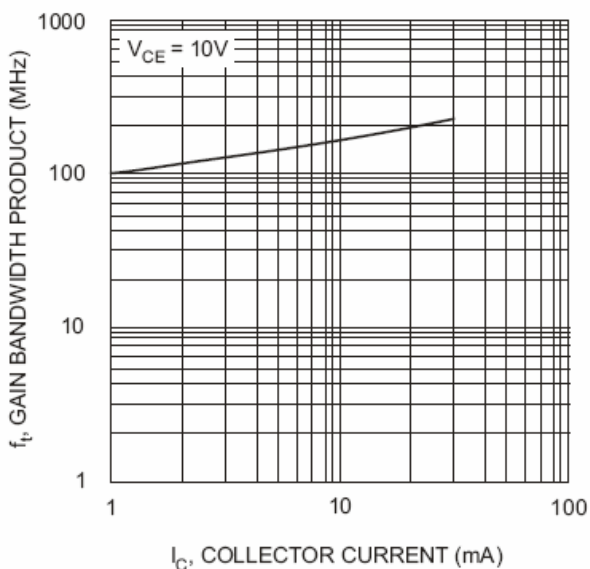


Fig. 5, Gain Bandwidth Product vs Collector Current