



FEATURES

Complementary to MMBT5551

Ideal for medium power amplification and switching

MARKING: 2L

MAXIMUM RATINGS (TA=25°C 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	°C
Storage Temperature	T_{stg}	-55 to +150	°C

MMBT5401 (PNP)

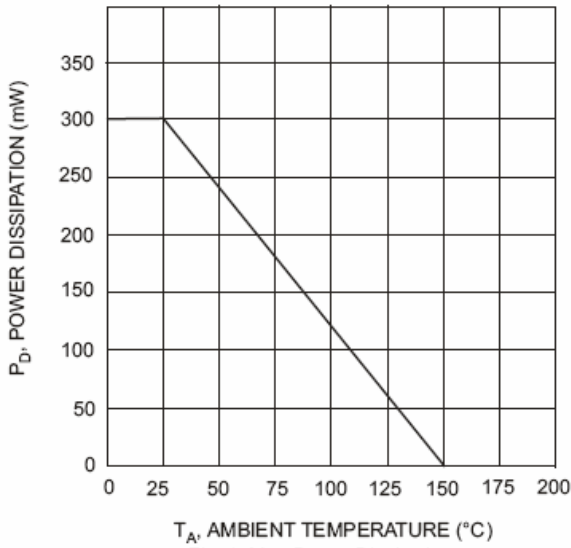


ELECTRICAL CHARACTERISTICS (Tamb=25°C unless otherwise specified)

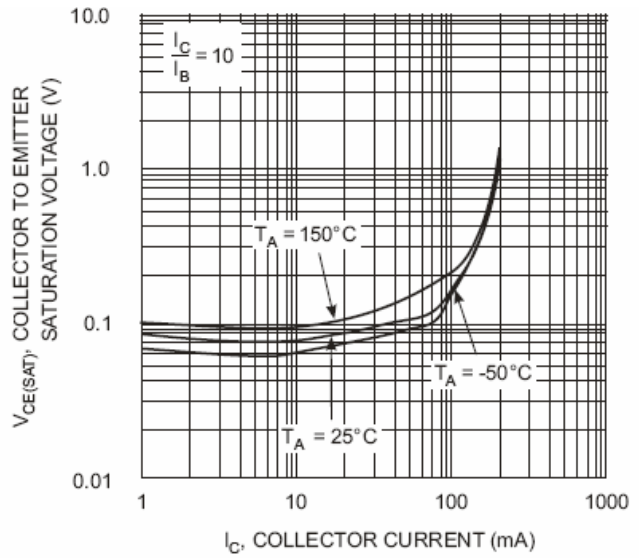
Parameter	Symbol	Test conditions	Min	Max	Unit
Collector-base breakdown voltage	V_{CBO}	$I_C = -100\mu A, I_E = 0$	-160		V
Collector-emitter breakdown voltage	V_{CEO}	$I_C = -1mA, I_B = 0$	-150		V
Emitter-base breakdown voltage	V_{EBO}	$I_E = -10\mu A, I_C = 0$	-5		V
Collector cut-off current	I_{CB}	$V_{CB} = -120V, I_E = 0$		-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



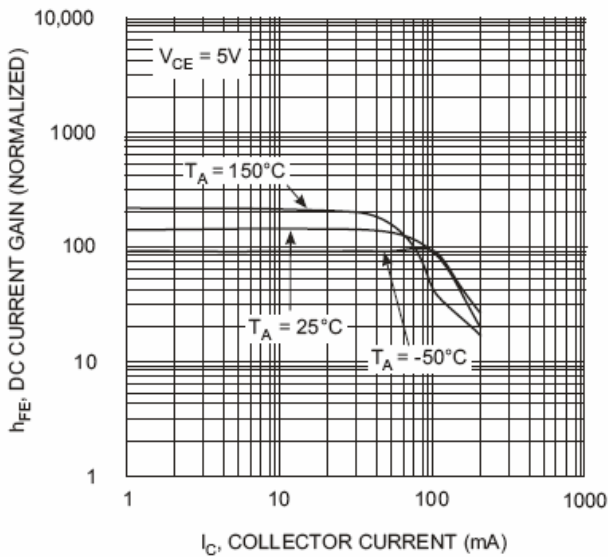
MMBT5401 Typical Characteristics



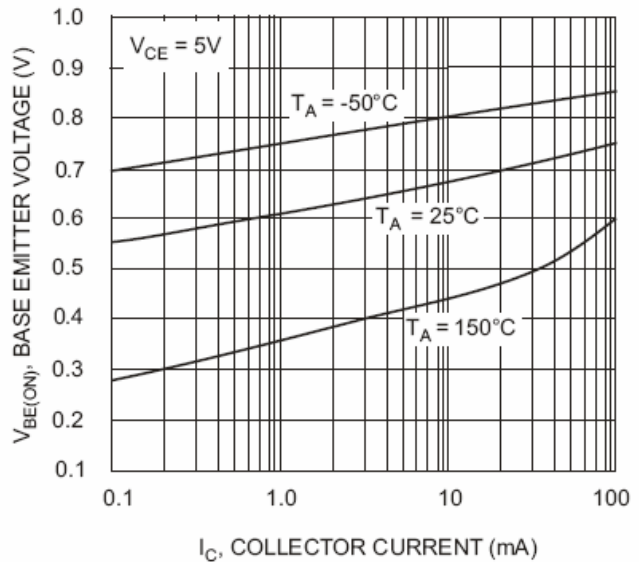
T_A , AMBIENT TEMPERATURE (°C)
Fig. 1, Max Power Dissipation vs Ambient Temperature



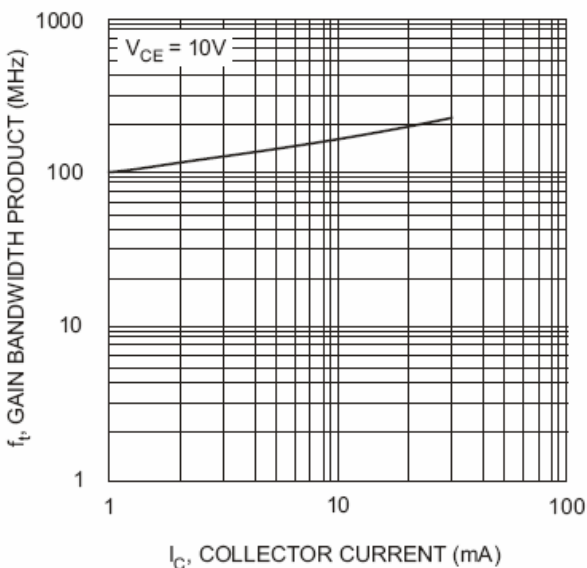
I_C , COLLECTOR CURRENT (mA)
Fig. 2, Collector Emitter Saturation Voltage vs. Collector Current



I_C , COLLECTOR CURRENT (mA)
Fig. 3, DC Current Gain vs. Collector Current



I_C , COLLECTOR CURRENT (mA)
Fig. 4, Base Emitter Voltage vs. Collector Current



I_C , COLLECTOR CURRENT (mA)
Fig. 5, Gain Bandwidth Product vs Collector Current