

FEATURES

Complementary to MMBT5401

Ideal for medium power amplification and switching

MMBT5551 (NPN)

MARKING: G1

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

Parameter	Symbol	Value	Unit
Collector-Base Voltage	V _{CBO}	180	V
Collector-Emitter Voltage	V _{CEO}	160	V
Emitter-Base Voltage	V _{EBO}	6	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

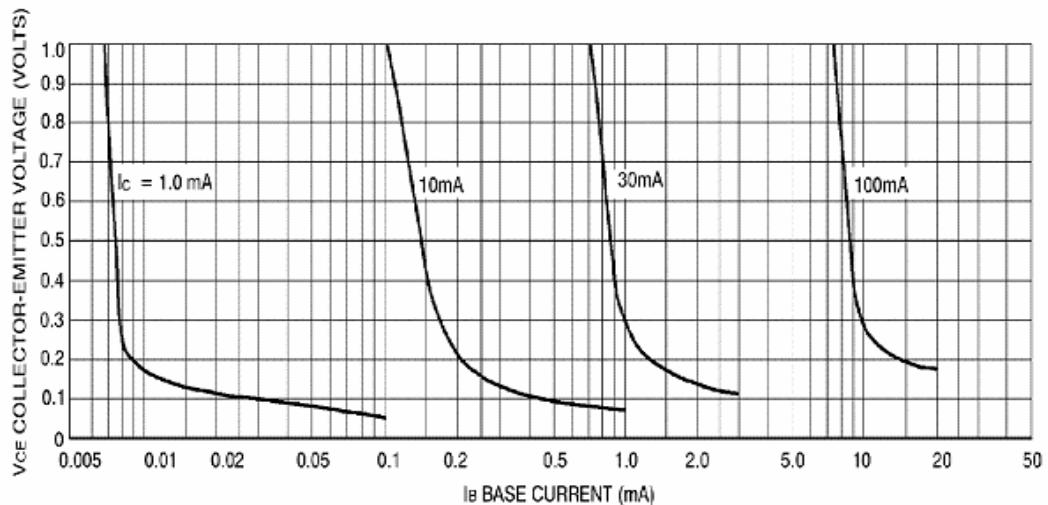
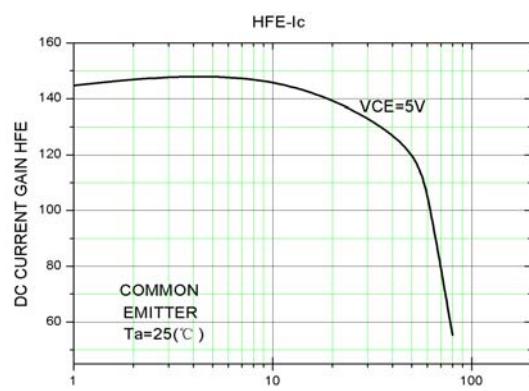
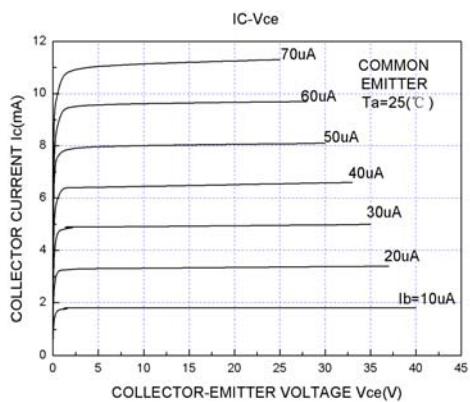


ELECTRICAL CHARACTERISTICS (Tamb=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	V _{CBO}	I _C =100μA, I _E =0	180			V
Collector-emitter breakdown voltage	V _{CEO}	I _C = 1mA, I _B =0	160			V
Emitter-base breakdown voltage	V _{EBO}	I _E =10μA, I _C =0	6			V
Collector cut-off current	I _{CBO}	V _{CB} = 120V, I _E =0			50	nA
Emitter cut-off current	I _{EB}	V _{EB} = 4V, I _C =0			50	nA
DC current gain	h _{FE1} *	V _{CE} =5V, I _C =1mA	80			
		V _{CE} =5V, I _C =10mA	100		300	
		V _{CE} =5V, I _C =50mA	50			
Collector-emitter saturation voltage	V _{CESat} *	I _C =10mA, I _B =1mA			0.15	V
		I _C =50mA, I _B =5mA			0.2	
Base-emitter saturation voltage	V _{BESat} *	I _C =10mA, I _B = 1mA			1	V
		I _C =50mA, I _B = 5mA			1	
Transition frequency	f _T	V _{CE} =10V, I _C =10mA, f=100MHz	100		300	MHz
Collector output capacitance	C _{ob}	V _{CB} =10V, I _E =0, f=1MHz			6	pF
Input capacitance	C _{ib}	V _{BE} =0.5V, I _C =0, f=1MHz			20	pF
Noise figure	NF	V _{CE} =5V, I _c =0.25mA, f=10Hz to 15.7KHz, R _s =1k			8	dB

*Pulse test

MMBT5551 Typical Characteristics



Collector Saturation Region