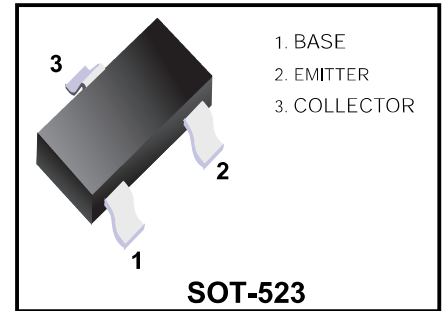


TRANSISTOR (NPN)

FEATURES

- ◆ Complementary to MMBT5401
- ◆ Ideal for medium power amplification and switching



Marking Code	
MMBT5551T	G1

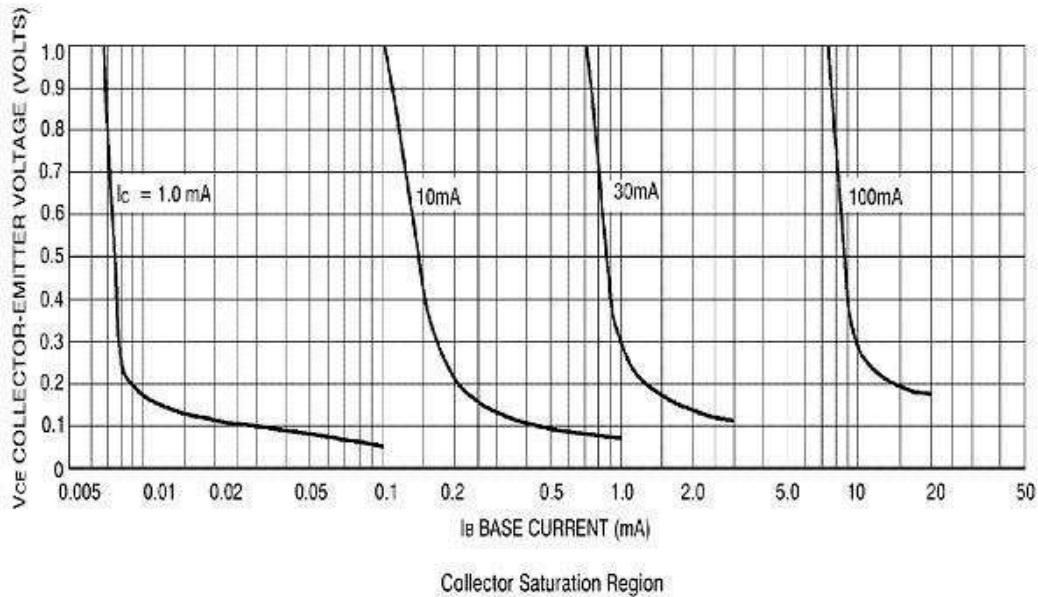
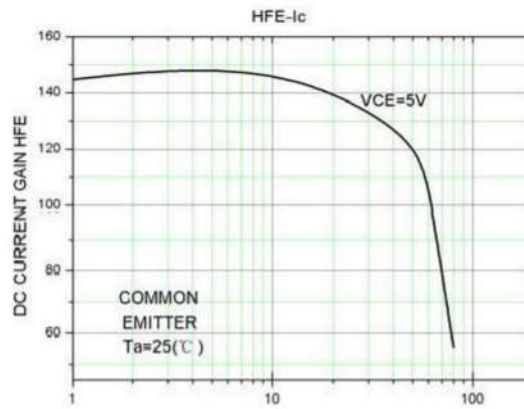
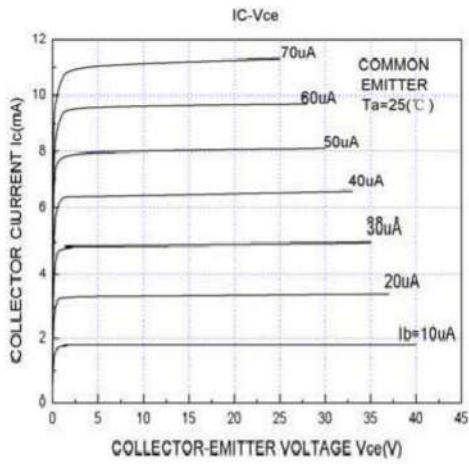
MAXIMUM RATINGS (Ta=25°C unless otherwise noted)

Symbol	Parameter	Value	Units
V _{CB0}	Collector-Base Voltage	180	V
V _{CEO}	Collector-Emitter Voltage	160	V
V _{EBO}	Emitter-Base Voltage	6	V
I _c	Collector Current -Continuous	0.6	A
P _c	Collector Power Dissipation	200	mW
T _j	Junction Temperature	150	°C
T _{stg}	Storage Temperature	-55-150	°C

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

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	V _{(BR)CBO}	I _c =100μA, I _E =0	180			V
Collector-emitter breakdown voltage	V _{(BR)CEO} *	I _c = 1mA, I _B =0	160			V
Emitter-base breakdown voltage	V _{(BR)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 _{EBO}	V _{EB} = 4V, I _c =0			50	nA
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 _{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 =1kΩ			8	dB

Typical Characteristics



Ordering information

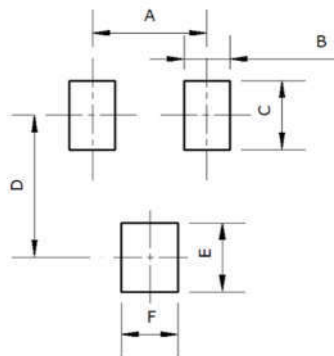
Package	Packing Description	Base Quantity	Packing Quantity
SOT-523	Tape/Reel,7"reel	3000pcs/Reel	24000PCS/Box 120000PCS/Carton

Package Dimensions

SOT-523

Dim.	Millimeter (mm)		mil	
	Min.	Max.	Min.	Max.
A	1.50	1.70	59	67
B	0.75	0.85	30	33
C	1.45	1.75	57	69
D	0.50TYP		0.020TYP	
E	0.90	1.10	35	43
G	0.00	0.10	0	4
H	0.60	0.80	24	31
J	0.10	0.20	4	8
K	0.15	0.35	6	14
L	0.26	0.46	10	18

The recommended mounting pad size



Millimeter (mm)	
Dim.	TYP
A	1.00
B	0.40
C	0.60
D	1.24
E	0.60
F	0.50

Disclaimer

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