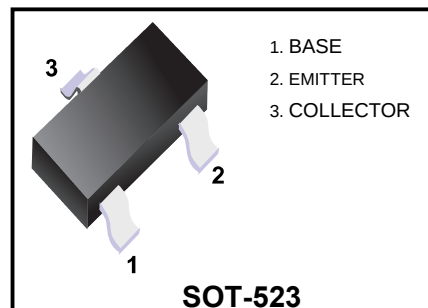


NPN Transistors

Features

- Small Package
- Complementary to MMBT2907AT

Marking Code	
MMBT2222AT	1P

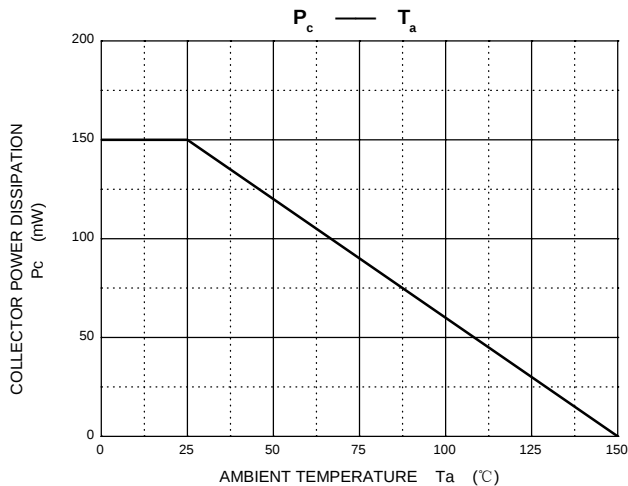
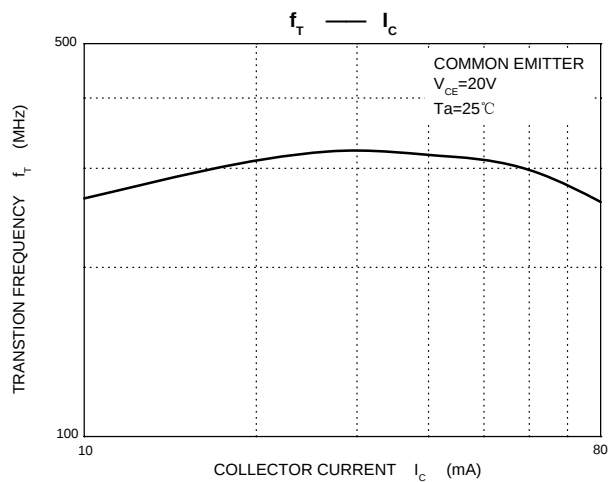
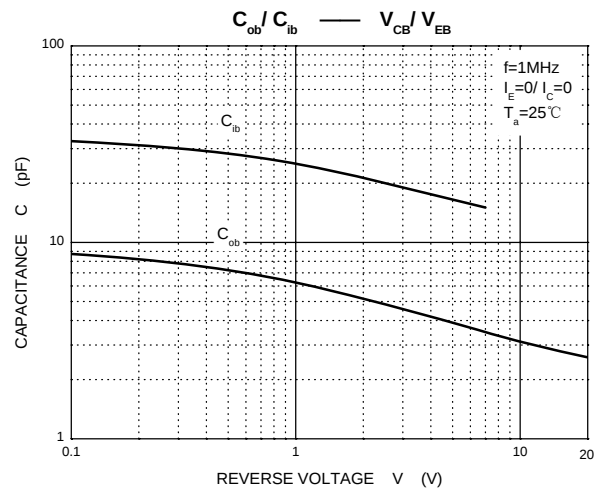
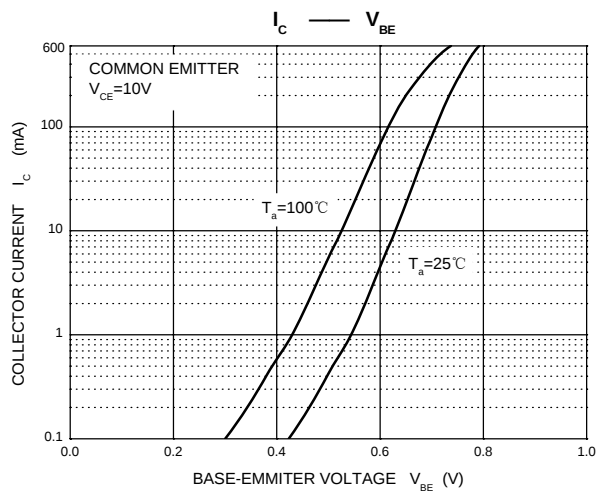
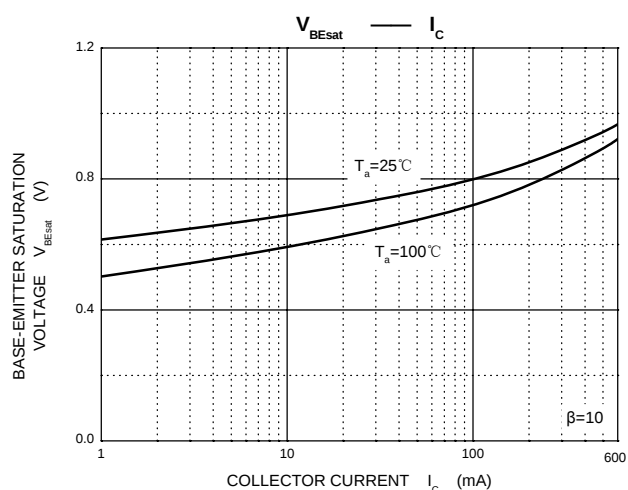
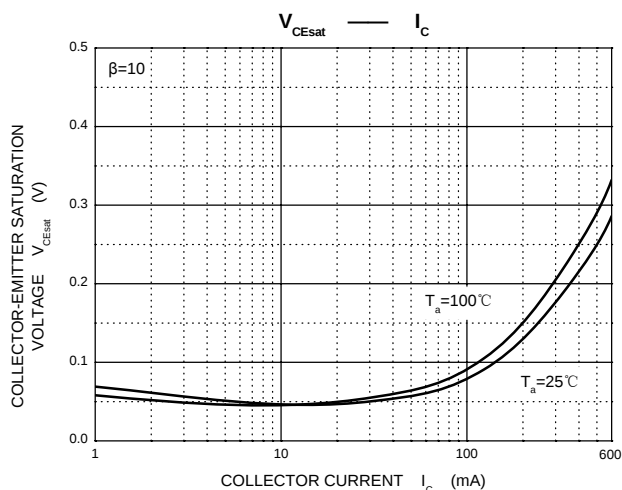
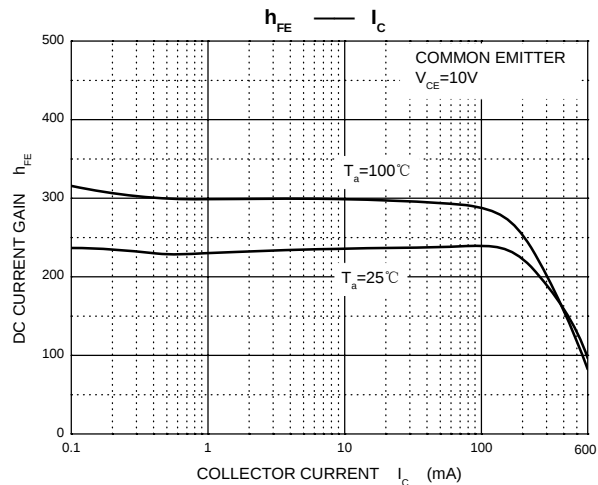
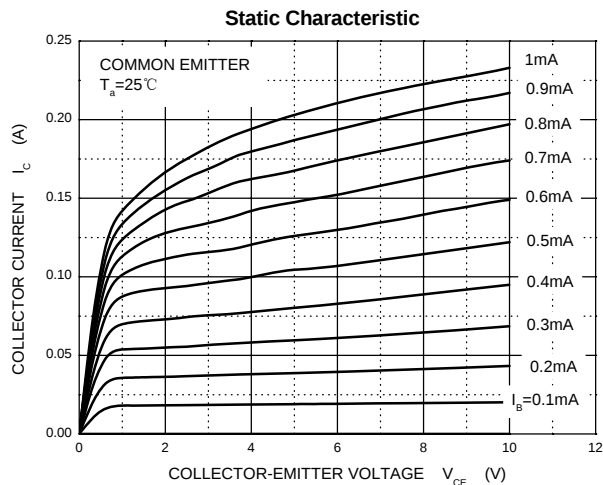


Absolute Maximum Ratings Ta=25°C

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V _{CB0}	75	V
Collector - Emitter Voltage	V _{CEO}	40	
Emitter - Base Voltage	V _{EB0}	6	
Collector Current - Continuous	I _C	600	mA
Collector Power Dissipation	P _C	150	mW
Thermal Resistance, Junction to Ambient	R _{θJA}	833	°C/W
Junction Temperature	T _J	150	°C
Storage Temperature Range	T _{stg}	-55 to 150	

Electrical Characteristics Ta=25°C

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	V _{CB0}	I _C = 100 μA, I _E = 0	75			V
Collector- emitter breakdown voltage	V _{CEO}	I _C = 10 mA, I _B = 0	40			
Emitter - base breakdown voltage	V _{EB0}	I _E = 100 μA, I _C = 0	6			
Collector-base cut-off current	I _{CBO}	V _{CB} = 75 V, I _E = 0			100	nA
Collector cut-off current	I _{CEX}	V _{CE} = 60 V, V _{EB(off)} =3V			100	
Emitter cut-off current	I _{EBO}	V _{EB} = 6V, I _C =0			100	
Collector-emitter saturation voltage	V _{CE(sat)}	I _C =150 mA, I _B =15mA			0.3	V
		I _C = 500 mA, I _B = 50mA			1	
Base - emitter saturation voltage	V _{BE(sat)}	I _C =150 mA, I _B =15mA			1.2	
		I _C = 500 mA, I _B = 50mA			2	
DC current gain	h _{FE(1)}	V _{CE} = 10V, I _C = 0.1mA	35			
	h _{FE(2)}	V _{CE} = 10V, I _C = 1mA	50			
	h _{FE(3)}	V _{CE} = 10V, I _C = 10mA	75			
	h _{FE(4)}	V _{CE} = 10V, I _C = 150mA	100		300	
	h _{FE(5)}	V _{CE} = 10V, I _C = 500mA	40			
Delay time	t _d	V _{CC} =30V, V _{BE(off)} =-0.5V			10	nS
Rise time	t _r	I _C =150mA, I _{B1} =15mA			25	
Storage time	t _s	V _{CC} =30V, I _C =150mA, I _{B1} =I _{B2} =15mA			225	
Fall time	t _f				60	
Collector output capacitance	C _{ob}	V _{CB} = 10V, I _E = 0, f=1MHz			8	pF
Transition frequency	f _T	V _{CE} = 20V, I _C = 20mA, f=100MHz	300			MHz



Ordering information

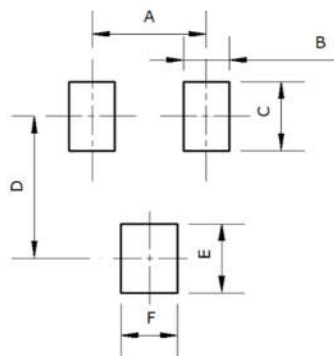
Package	Packing Description	Base Quantity	Packing Quantity
SOT-523	Tape/Reel, 7" reel	3000pcs/Reel	24000PCS/Box 120000PCS/Carton

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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