

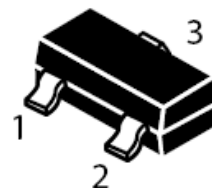
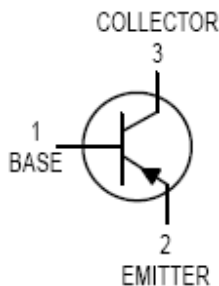
PNP General Purpose Transistor

FEATURES

- Ideal for Medium Power Amplification and Switching
- Complementary NPN Type available(MMBT2222A)

MECHANICAL DATA

- Case: SOT-23 Plastic
- Case material: "Green" molding compound, UL flammability classification 94V-0, (No Br. Sb. Cl)
- Lead Free in RoHS 2002/95/EC Compliant



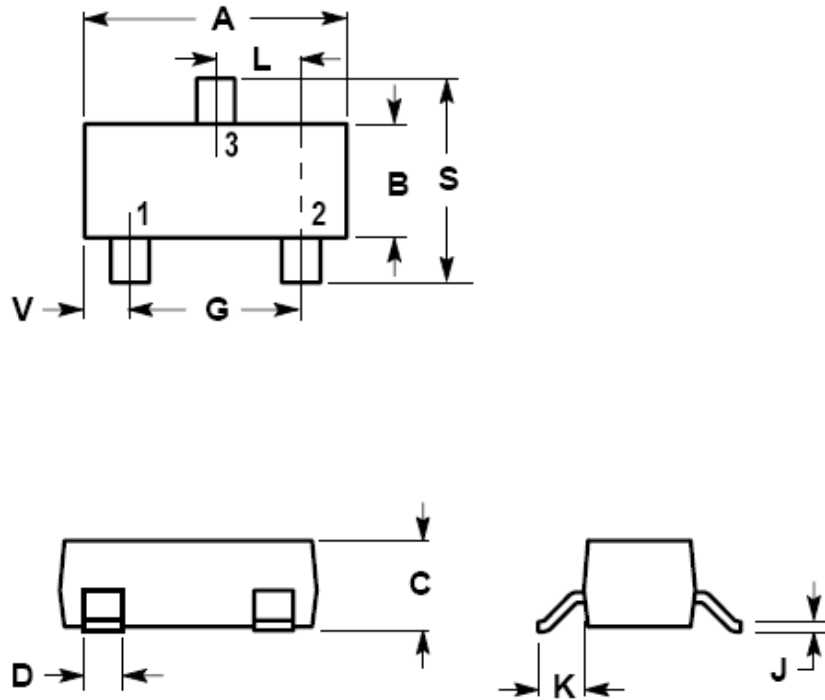
Maximum Ratings @ T_A = 25°C

Characteristic	Symbol	Value	Unit
Collector-Base Voltage	V _{CB0}	-60	V
Collector-Emitter Voltage	V _{CEO}	-60	V
Emitter-Base Voltage	V _{EBO}	-5	V
Collector Current -Continuous	I _C	-600	mA
Collector Power Dissipation	P _C	250	mW
Thermal Resistance, junction to Ambient	R _{θJA}	500	°C/W
Junction Temperature	T _J	150	°C
Storage Temperature Range	T _{STG}	-55~+150	°C

Electrical Characteristics @ T_A = 25°C unless otherwise specified

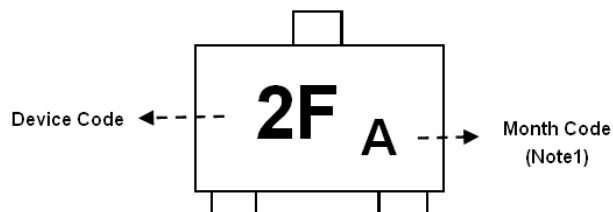
Characteristic	Test Condition	Symbol	Min.	Typ.	Max.	Unit
Collector-base breakdown voltage	I _C =-10μA, I _E =0	V _{CB0}	-60			V
Collector-emitter breakdown voltage	I _C =-10mA, I _B =0	V _{CEO}	-60			V
Emitter-base breakdown voltage	I _E =-10μA, I _C =0	V _{EBO}	-5			V
Collector-base cut-off current	V _{CB} =-50V, I _E =0	I _{CB0}			-20	nA
Emitter-base cut-off current	V _{EB} =-3V, I _C =0	I _{EBO}			-10	nA
Collector-emitter cut-off current	V _{CE} =-30V, V _{BE(off)} =-0.5V	I _{CEX}			-50	nA
DC current gain	V _{CE} =-10V, I _C =-150mA	h _{FE1}	100		300	
	V _{CE} =-10V, I _C =-0.1mA	h _{FE2}	75			
	V _{CE} =-10V, I _C =-1mA	h _{FE3}	100			
	V _{CE} =-10V, I _C =-10mA	h _{FE4}	100			
	V _{CE} =-10V, I _C =-500mA	h _{FE5}	50			
Collector-emitter saturation voltage	I _C =-150mA, I _B =-15mA	V _{CE(sat)1}			-0.4	V
	I _C =-500mA, I _B =-50mA	V _{CE(sat)2}			-1.6	V
Base-emitter saturation voltage	I _C =-150mA, I _B =-15mA	V _{BE(sat)1}			-1.3	V
	I _C =-500mA, I _B =-50mA	V _{BE(sat)2}			-2.6	V
Transition frequency	V _{CE} =-20V, I _C =-50mA, f=100MHz	f _T	200			MHz
Delay time	V _{CC} =-30V, I _C =-150mA, I _{B1} =-15mA	T _d			10	nS
Rise time		T _r			25	nS
Storage time	V _{CC} =-6V, I _C =-150mA	T _s			225	nS
Fall time	I _{B1} =-I _{B2} =-15mA	T _f			60	nS

SOT-23 Outline Dimension



Symbol	Dimension In Millimeters	
	Min	Max.
A	2.80	3.04
B	1.20	1.40
C	0.89	1.11
D	0.37	0.50
G	1.78	2.04
J	0.085	0.177
K	0.35	0.69
L	0.89	1.02
S	2.10	2.64
V	0.45	0.60

Device Marking:



Note1:

Odd Year	J	O	L	C	K	B	P	D	M	E	G	F
Even Year	W	N	Y	T	R	H	A	I	U	X	Z	S

Electrical characteristic curves

Fig.1 DC Current Gain vs. Collector Current

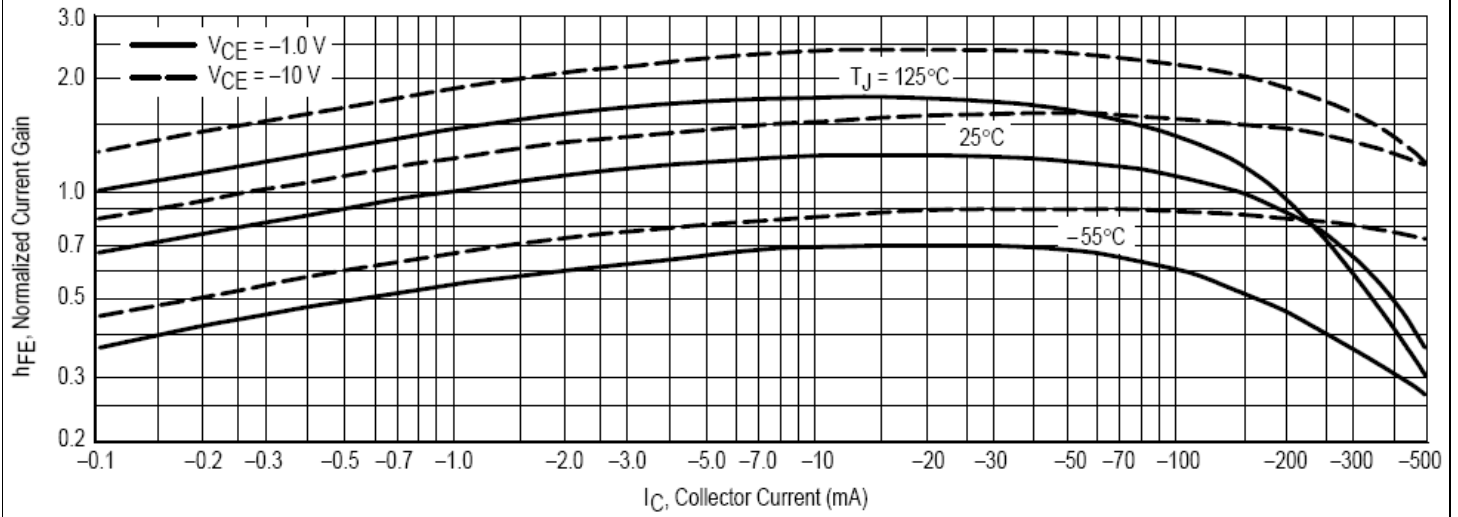


Fig.2 "On" Voltages

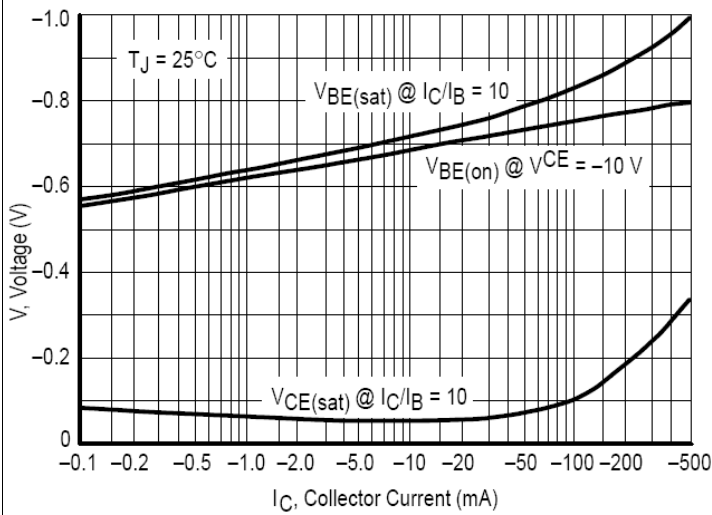
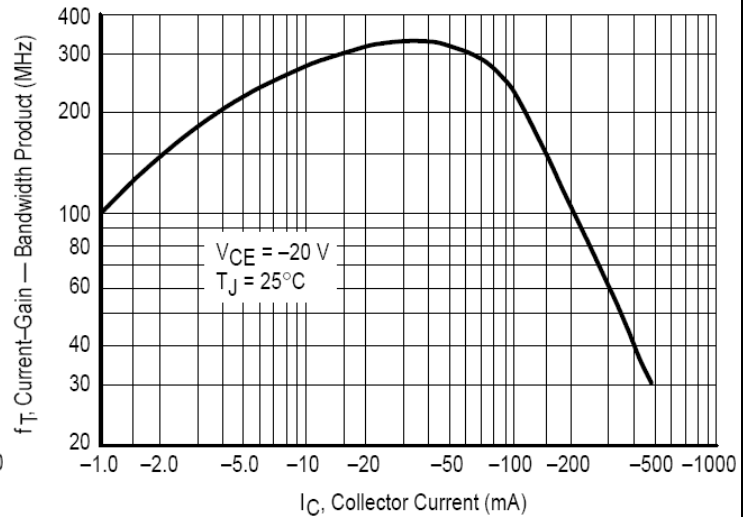


Fig.3 Gain-Bandwidth Product vs. Collector Current



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