



MMBT1616

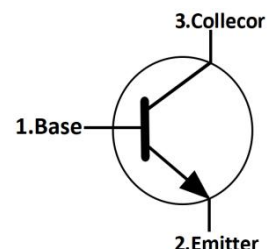
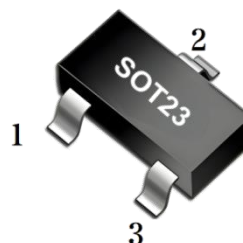
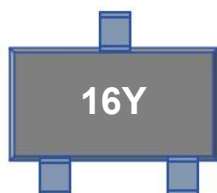
NPN SILICON TRANSISTOR

FEATURES

- *Audio frequency power amplifier
- *Medium speed switching

MARKING

Type Code: Marking: 16Y/G/L



ABSOLUTE MAXIMUM RATINGS (TC=25°C, unless otherwise specified)

SYMBOL	PARAMETER	VALUE	UNIT
V _{CBO}	Collector-base voltage	120	V
V _{CEO}	Collector-emitter voltage	60	V
V _{EBO}	Emitter-base voltage	6	V
I _C	Collector current	1	A
P _C	Collector Power Dissipation	350	mW
T _j	Junction Temperature	150	°C
T _{stg}	Storage Temperature	-55~150	°C
R _{θJA}	Thermal Resistance From Junction To Ambient	357	°C/W

Note: Absolute maximum ratings are those values beyond which the device could be permanently damaged.

Absolute maximum ratings are stress ratings only and functional device operation is not implied.

ELECTRICAL CHARACTERISTICS (T_c=25°C, unless otherwise specified)

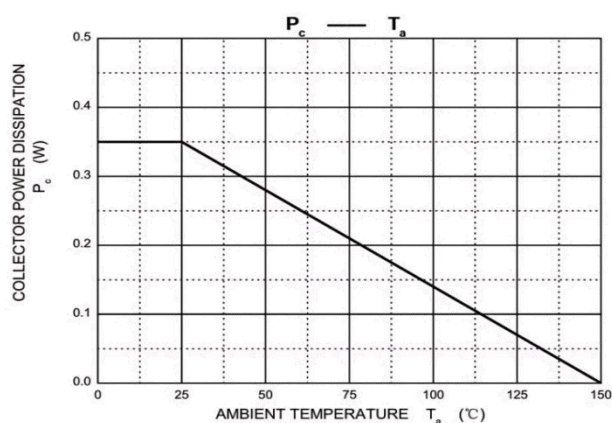
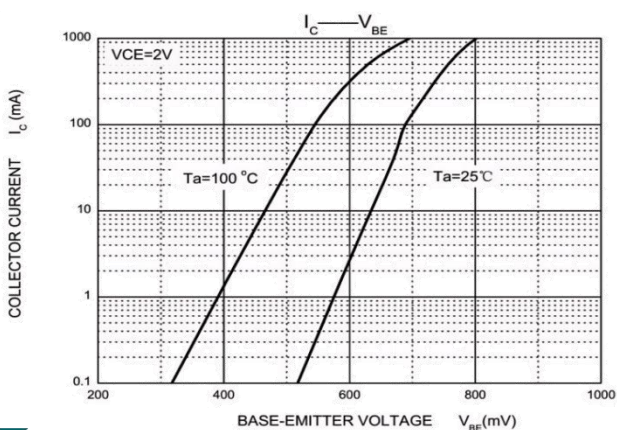
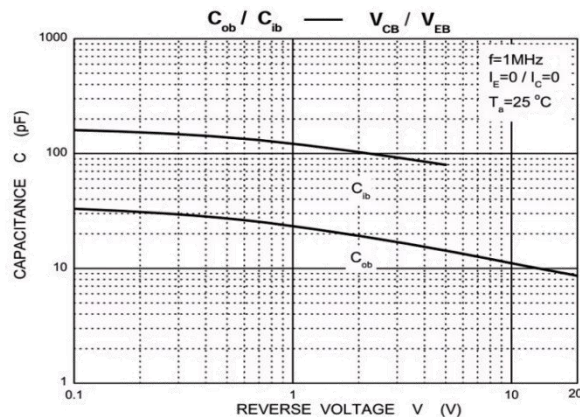
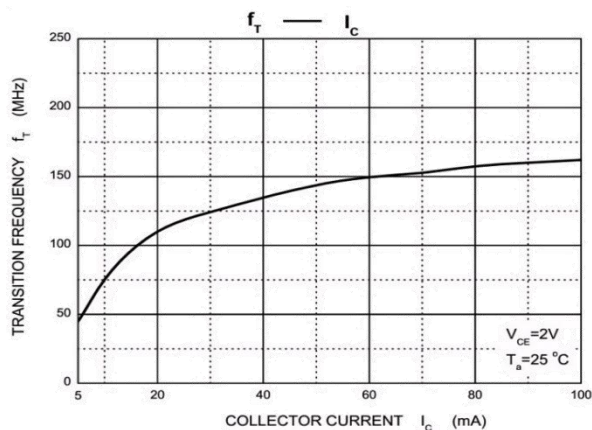
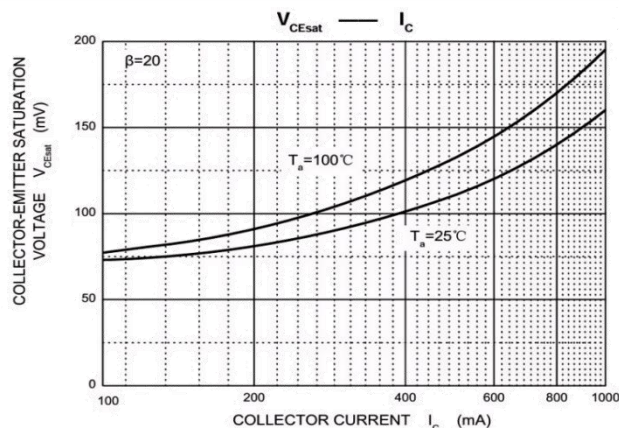
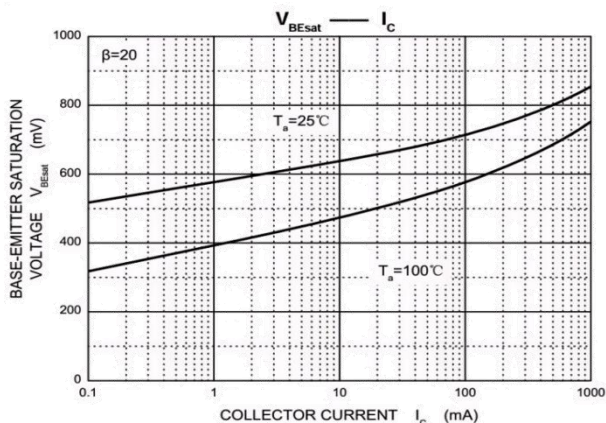
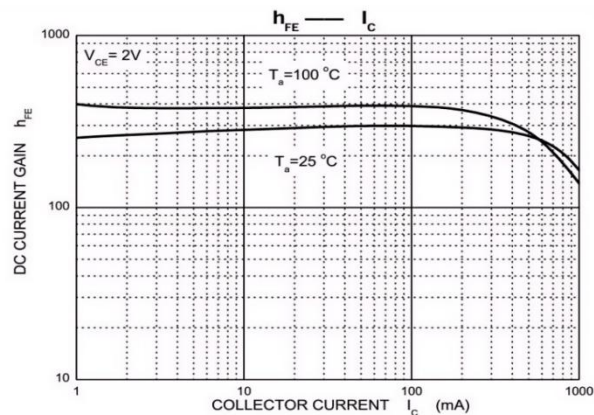
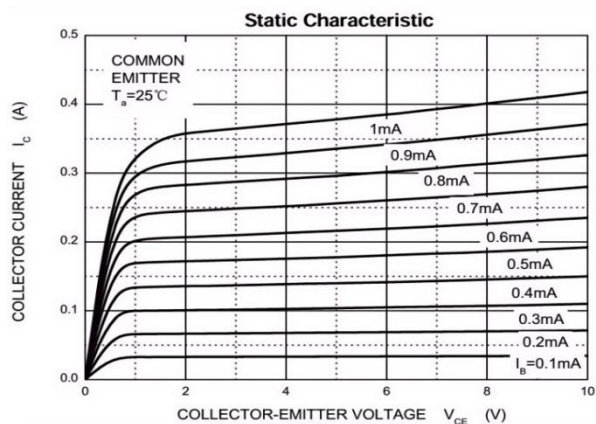
PARAMETER	SYMBOL	TEST CONDITIONS	MIN	MAX	UNIT
Collector-base breakdown voltage	V _{(BR)CBO}	I _C =10μA, I _E =0	120		V
Collector-emitter breakdown voltage	V _{(BR)CEO}	I _C =2mA, I _B =0	60		V
Emitter-base breakdown voltage	V _{(BR)EBO}	I _E =10μA, I _C =0	6		V
Collector cutoff current	I _{CBO}	V _{CB} =60V, I _E =0		100	nA
Emitter cut-off current	I _{EBO}	V _{EB} =6V, I _C =0		100	nA
DC Current Gain (CLASSIFICATION OF h _{FE1})	h _{FE1}	V _{CE} =2V, I _C =100mA	A	135	270
			B	200	400
			C	300	600
	h _{FE2}	V _{CE} =2V, I _C =1A	81		
Collector-emitter saturation voltage	V _{CE(sat)}	I _C =1A, I _B =50mA		0.3	V
Base-Emitter Saturation Voltage	V _{BE(sat)}	I _C =1A, I _B =50mA		1.2	V
Base-emitter voltage	V _{BE}	V _{CE} =2V, I _C =50mA	0.6	0.7	V
Transition frequency	f _T	V _{CE} =2V, I _C =100mA, f=100MHz	100		MHz
Collector output capacitance	C _{ob}	V _{CB} =10V, I _E =0, f=1MHz		19	pF



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■ TYPICAL CHARACTERISTICS

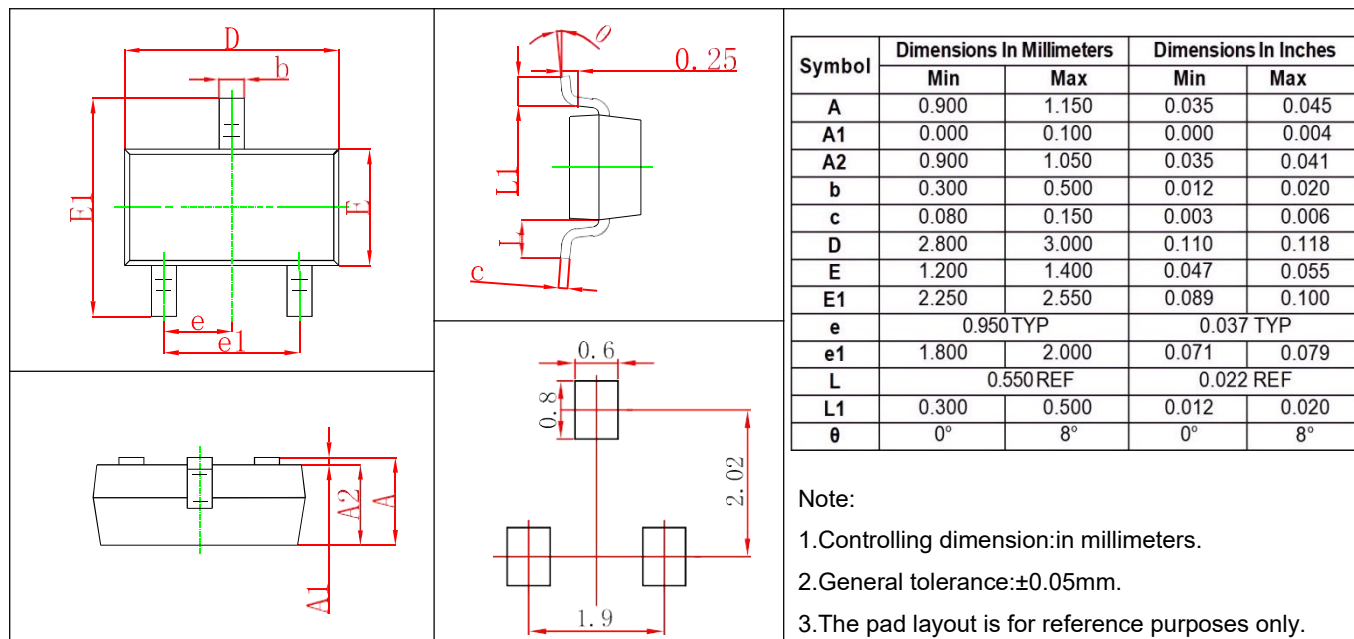




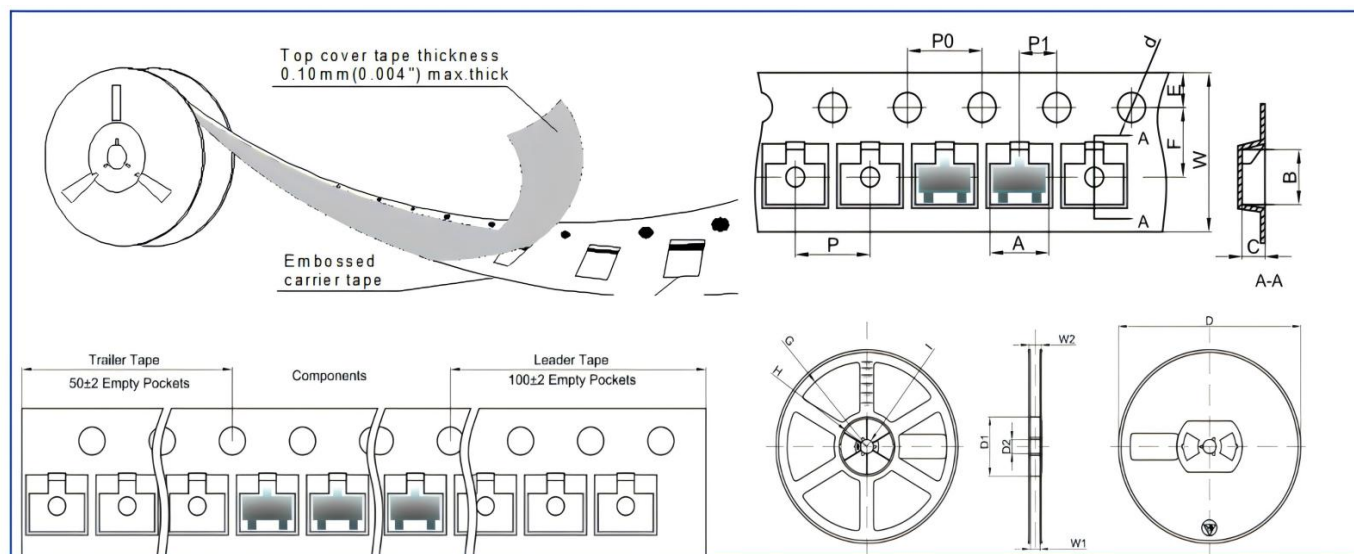
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SOT23 PACKAGE OUTLINE DIMENSIONS



REEL PACKING



Dimensions are in millimeter										
PKG TYPE	A	B	C	d	E	F	Po	P	P1	W
SOT-23	3.15	2.77	1.22	Φ1.50	1.75	3.50	4.00	4.00	2.00	8.00
Reel Option	D	D1	D2	G	H	I	W1	W2	Q.TY PER REEL	
7" Dia	Φ178.0	54.40	13.00	R78.00	R25.60	R6.50	9.50	12.30	3000PCS	
13"Dia	φ330.0	/	13.00	/	/	R6.50	9.50	12.30	10000PCS	