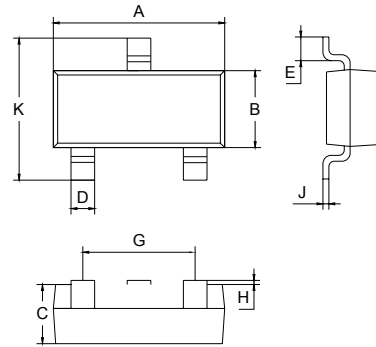


FEATURES

- Audio frequency power amplifier.
- Medium speed switching.

APPLICATIONS

- General purpose application, switching application.



SOT-23		
Dim	Min	Max
A	2.70	3.10
B	1.10	1.50
C	1.0 Typical	
D	0.4 Typical	
E	0.35	0.48
G	1.80	2.00
H	0.02	0.1
J	0.1 Typical	
K	2.20	2.60
All Dimensions in mm		

ORDERING INFORMATION

Type No.	Marking	Package Code
MMBT1616A	16A	SOT-23

MAXIMUM RATING @ Ta=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 -Continuous	1000	mA
P _C	Collector Dissipation	350	mW
T _J , T _{stg}	Junction and Storage Temperature	-55 to +150	°C

ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

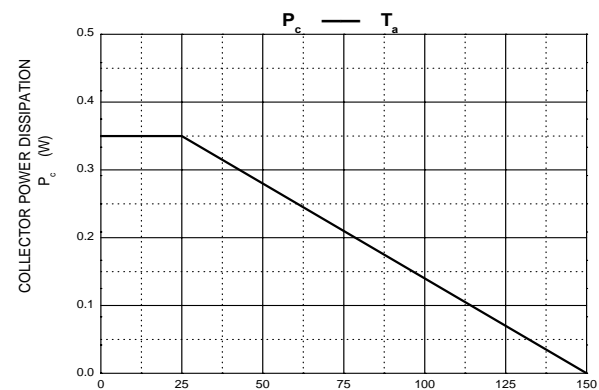
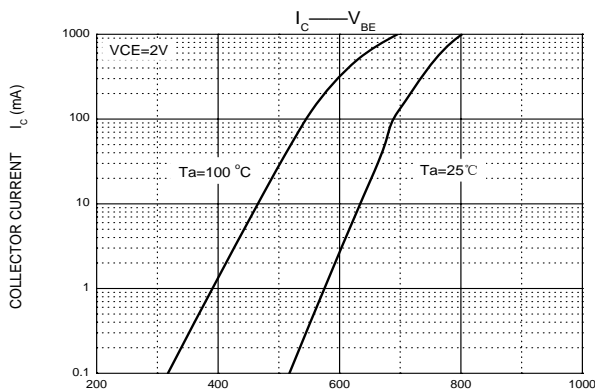
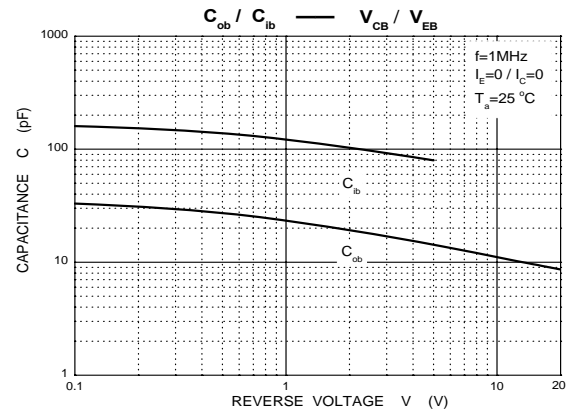
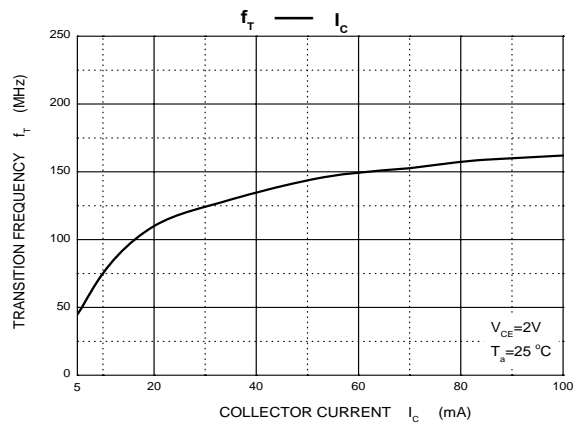
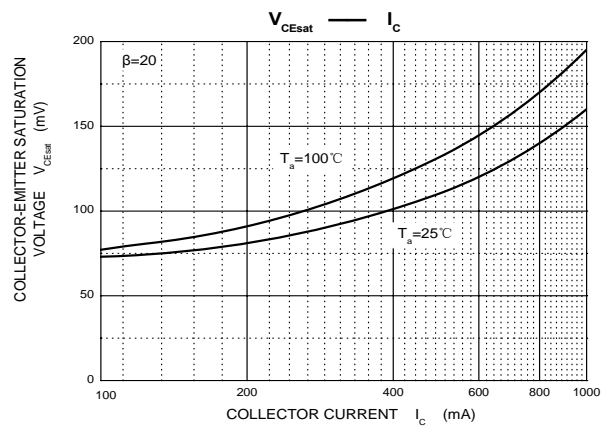
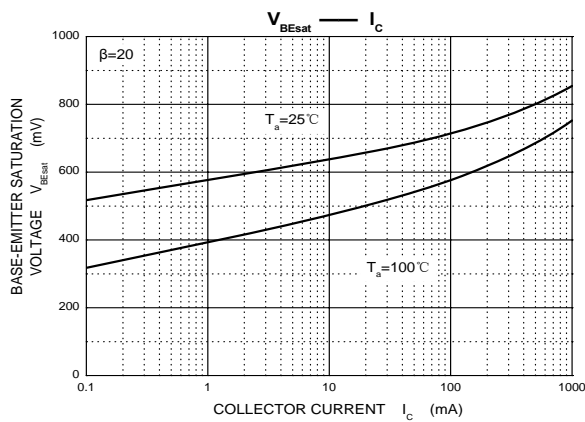
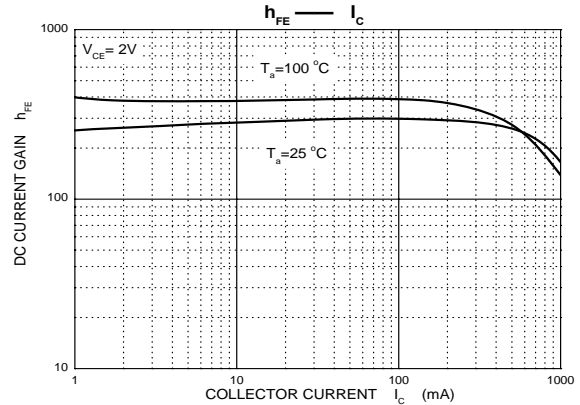
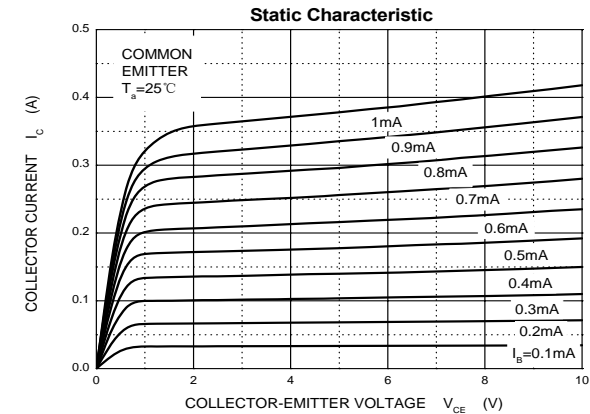
Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	V _{(BR)CBO}	I _C =100μA I _E =0	120			V
Collector-emitter breakdown voltage	V _{(BR)CEO}	I _C =1mA I _B =0	60			V
Emitter-base breakdown voltage	V _{(BR)EBO}	I _E =100μA I _C =0	6			V
Collector cut-off current	I _{CBO}	V _{CB} =60V I _E =0			0.1	μA
Collector cut-off current	I _{EBO}	V _{CE} =6V I _C =0			0.1	μA
DC current gain	h _{FE}	V _{CE} =2V I _C =100mA	135		600	
		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
Transition frequency	f _T	V _{CE} =2V I _C =100mA	100			MHz
Output capacitance	C _{ob}	V _{CB} =10V, I _E =0, f=1.0MHz			19	pF
Delay time	t _{on}	V _{CE} =10V, I _C =100mA		0.07		us
Rise time	T _f	V _{BE(off)} =2-3V		0.07		us
Storage time	t _s	I _{B1} =I _{B2} =10mA		0.95		us

CLASSIFICATION OF h_{FE(1)}

RANK	Y	G	L
RANGE	135~270	200~400	300~600



TYPICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified



Package	Reel	Reel Size	Box	Box Size(mm)	Carton	Carton Size(mm)
SOT-23	3000pcs	7inch	45,000pcs	203×203×195	180,000pcs	438×438×220