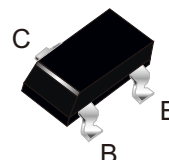


FEATURES

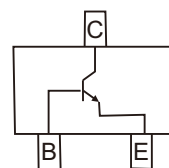
- Epoxy meets UL-94 V-0 flammability rating
- Complementary to MMBT2907A
- Power Dissipation of 300mW
- High Stability and High Reliability

SOT-23



MECHANICAL DATA

- Case: SOT-23(TO-236)
- Terminals: Plated solderable per MIL-STD-750, method 2026
- Mounting Position: Any
- Marking: 1P



MAXIMUM RATINGS($T_A=25^{\circ}\text{C}$ Unless otherwise specified)

Parameter	Symbol	Unit	Value
Collector-Emitter Voltage	V_{CE0}	V	40
Collector-Base Voltage	V_{CB0}	V	75
Emitter-Base Voltage	V_{EB0}	V	6.0
Collector Current, Continuous	I_c	mA	600
Power Dissipation	P_D	mW	300
Operation Junction Temperature	T_J	$^{\circ}\text{C}$	-55 to +150
Storage Temperature	T_{STG}	$^{\circ}\text{C}$	-55 to +150
Thermal resistance From junction to ambient	$R_{\theta JA}$	$^{\circ}\text{C}/\text{W}$	417

MMBT2222A

ELECTRICAL CHARACTERISTICS(T_A=25°C Unless otherwise specified)

Parameter	Symbol	Unit	Conditions	Min	Max
Collector-Emitter Breakdown Voltage	V _{(BR)CEO}	V	I _C =10mA, I _B =0	40	---
Collector-Base Breakdown Voltage	V _{(BR)CBO}	V	I _C =10μA, I _E =0	75	---
Emitter-Base Breakdown Voltage	V _{(BR)EBO}	V	I _E =10μA, I _C =0	6.0	---
Collector cut-off Current	I _{CBO}	nA	V _{CB} =60V, I _E =0	---	10
Collector cut-off Current	I _{CEX}	nA	V _{CE} =30V, V _{EB(off)} =3V	---	10
Emitter cut-off Current	I _{EBO}	nA	V _{EB} =3V, I _C =0	---	100
DC Current Gain	h _{FE(1)}		I _C =150mA, V _{CE} =10V	100	300
	h _{FE(2)}		I _C =0.1mA, V _{CE} =10V	40	---
	h _{FE(3)}		I _C =500mA, V _{CE} =10V	42	---
Collector-Emitter Saturation Voltage	V _{CE(sat)}	V	I _C =150mA, I _B =15mA	---	0.30
			I _C =500mA, I _B =50mA	---	1.00
Base-Emitter Saturation Voltage	V _{BE(sat)}	V	I _C =150mA, I _B =15mA	---	1.20
			I _C =500mA, I _B =50mA	---	2.00
Current Gain-Bandwidth Product	f _T	MHz	I _C =20mA, V _{CE} =20V f=100MHz	300	---
Noise Figure	NF	dB	V _{CE} =5.0V, f=1.0KHz, I _C =100μA, R _S =1.0KΩ	---	---
Delay time	t _d	nS	V _{CC} =30V, V _{BE(off)} =-0.5V, I _C =150mA, I _{B1} =15mA	---	10
Rise time	t _r	nS		---	25
Storage time	t _s	nS	V _{CC} =30V, I _C =150mA, I _{B1} =I _{B2} =15mA	---	225
Fall time	t _f	nS		---	60

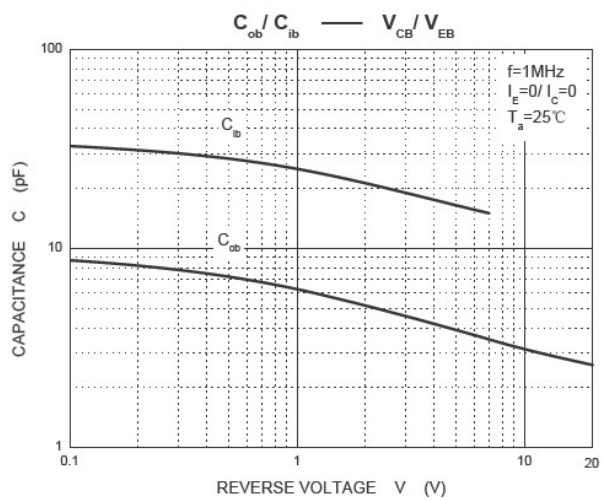
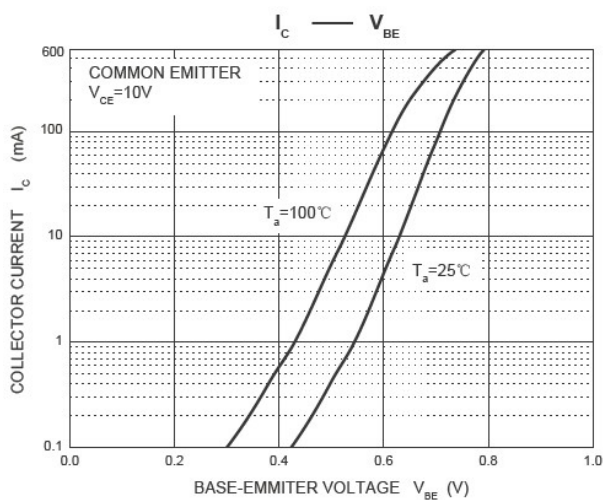
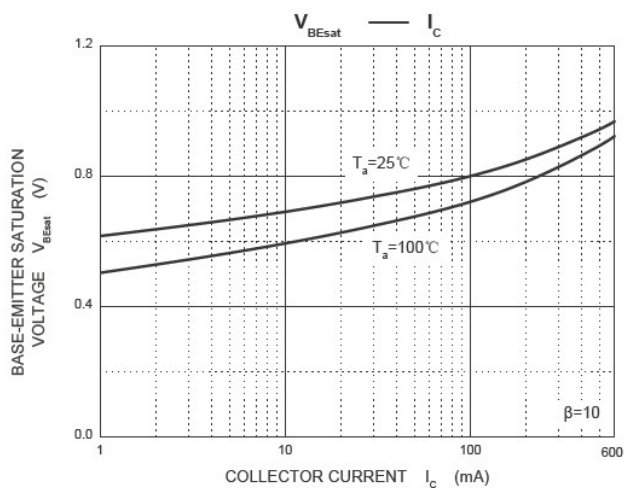
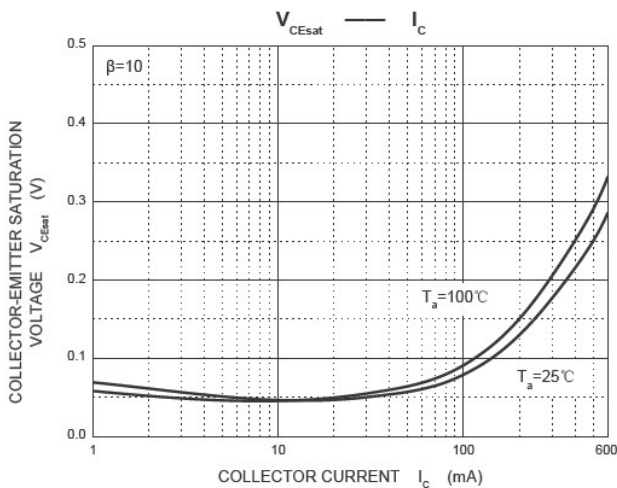
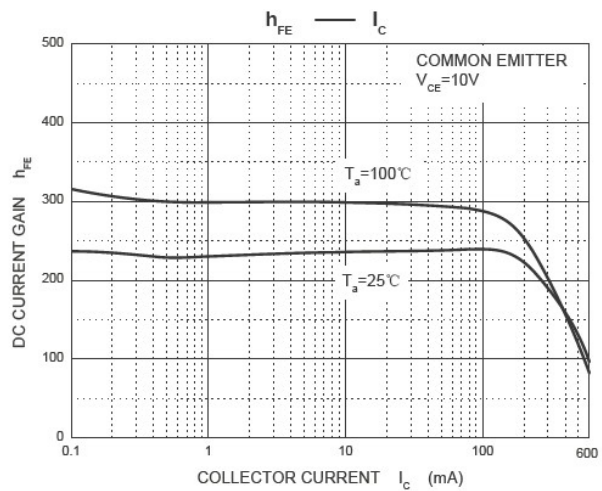
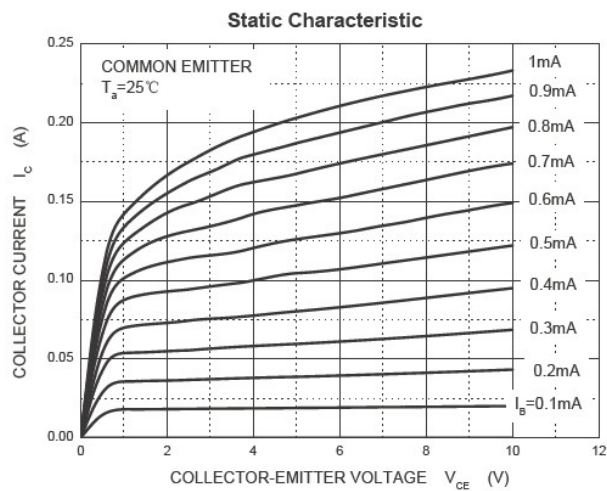
CLASSIFICATION OF h_{FE(1)}

HFE	100-300	
Rank	L	H
Range	100-200	200-300

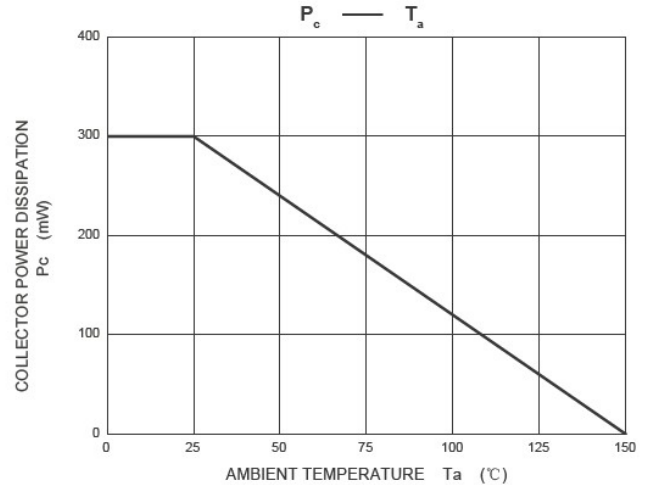
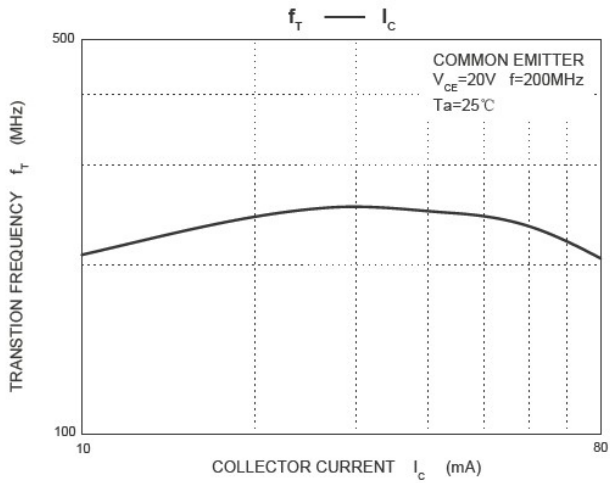
AVAILABLE PACK INFORMATION

Product code	Pack	Reel Size (mm)	Quantity (Pcs/reel)	Quantity (pcs/box)	Quantity (pcs/carton)
MMBT2222A	T/R	Φ180	3K	30K	120K

Characteristics(Typical)

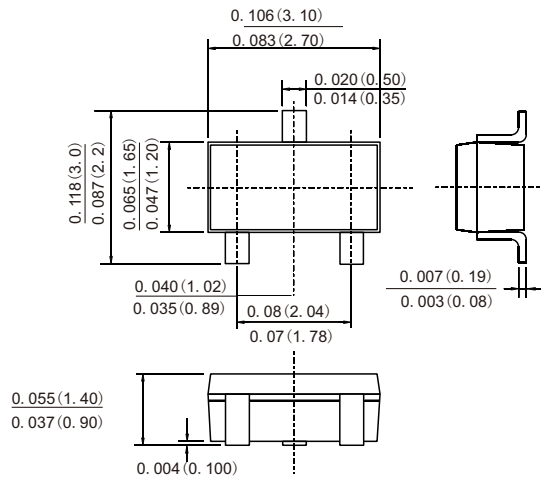


MMBT2222A

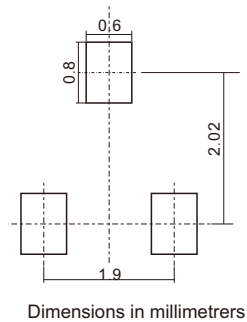


Outline Dimensions

SOT-23



Suggested pad layout



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