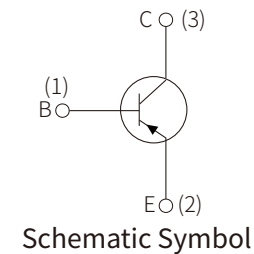
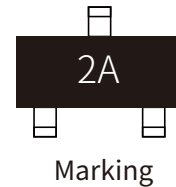


FEATURES

- | Complementary to MMBT3904
- | Power dissipation of 200mW
- | High stability and high reliability
- | Meet AEC-Q101 Requirements



MECHANICAL DATA

- | SOT-23 small outline plastic package
- | Epoxy UL: 94V-0
- | Mounting position: Any

APPROVALS

RoHS	Compliance with 2011/65/EU
HF	Compliance with IEC61249-2-21:2003

MAXIMUM RATINGS (T_A=25°C)

Parameter	Symbol	Value	Unit
Collector-Base Voltage	V _{CBO}	-40	V
Collector-Emitter Voltage	V _{CEO}	-40	
Emitter-Base Voltage	V _{EBO}	-5	
Collector Current	I _C	-0.2	A
Collector Power Dissipation	P _C	0.2	W
Operation Junction and Storage Temperature Range	T _J , T _{STG}	-55~+150	°C

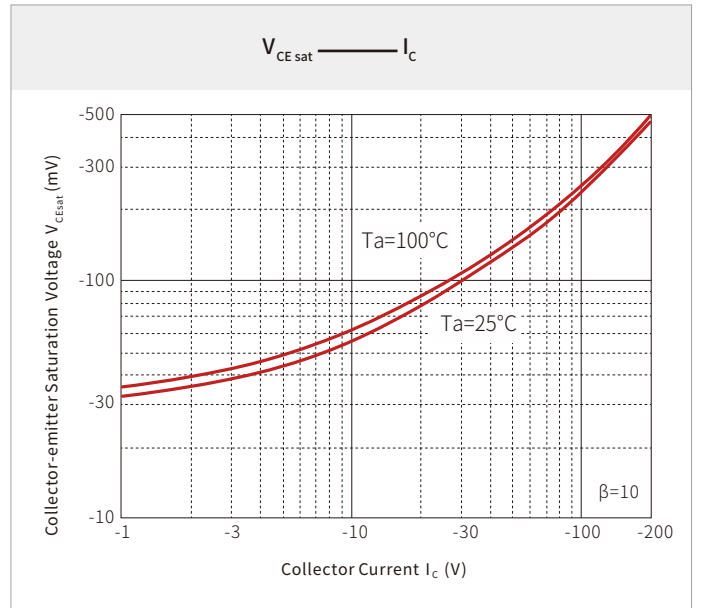
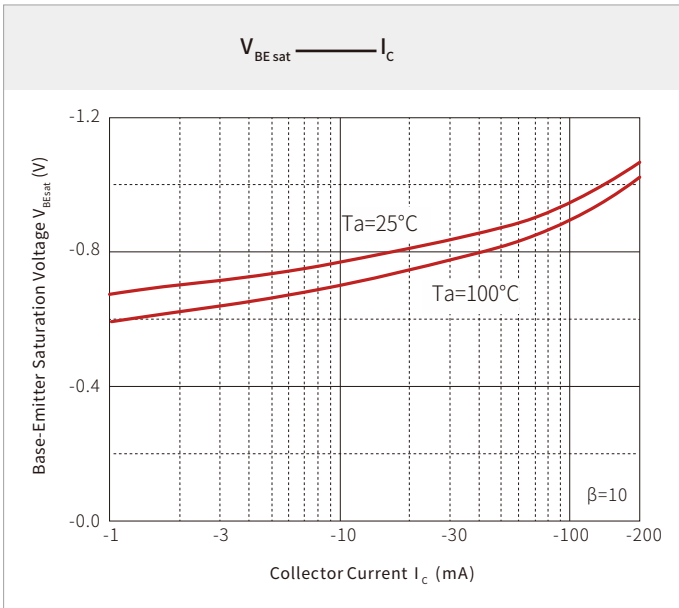
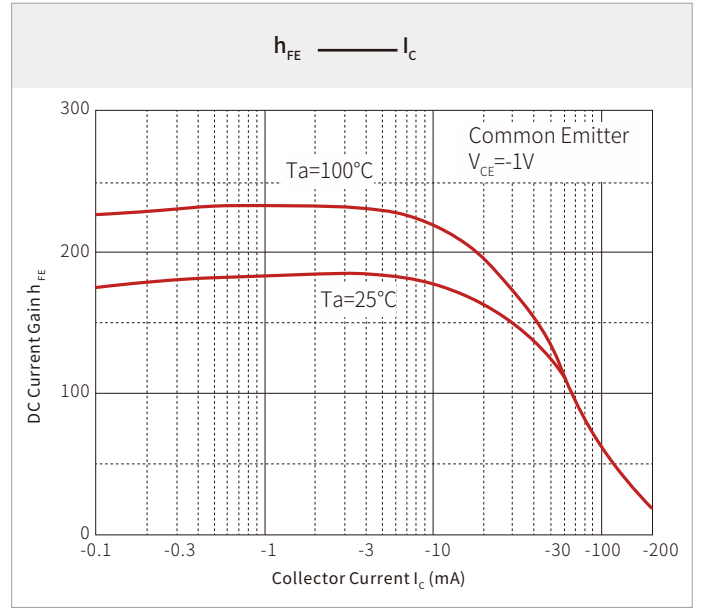
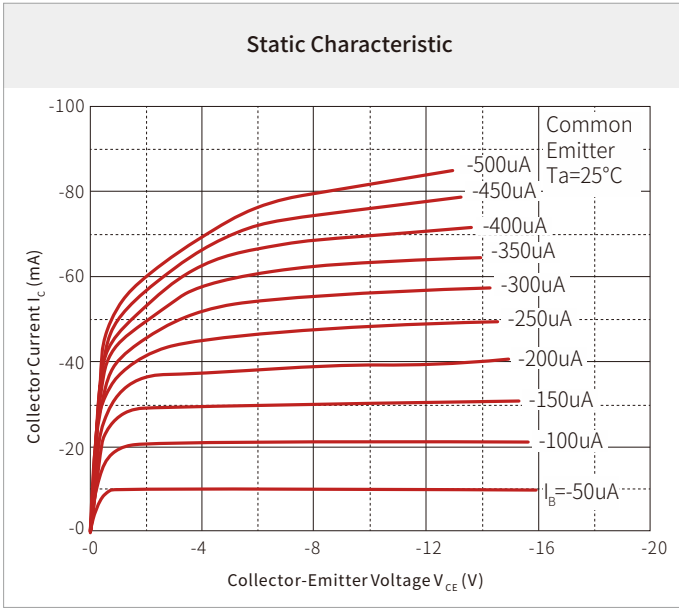
ELECTRICAL CHARACTERISTICS (T_A=25°C)

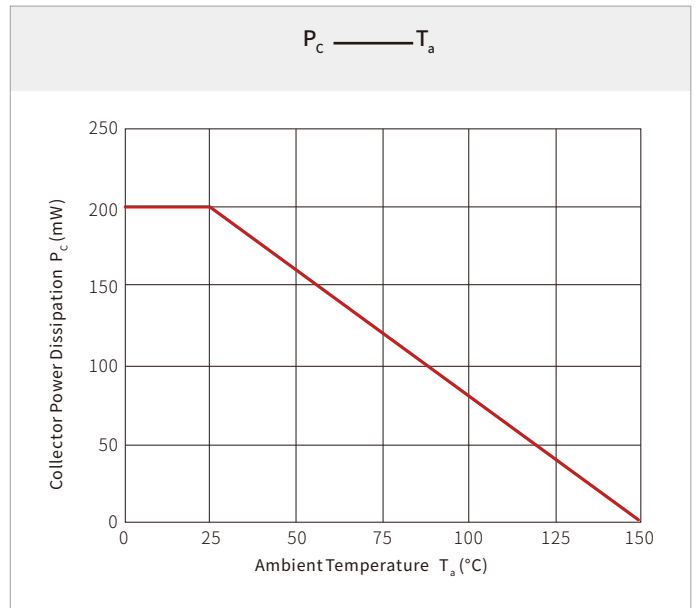
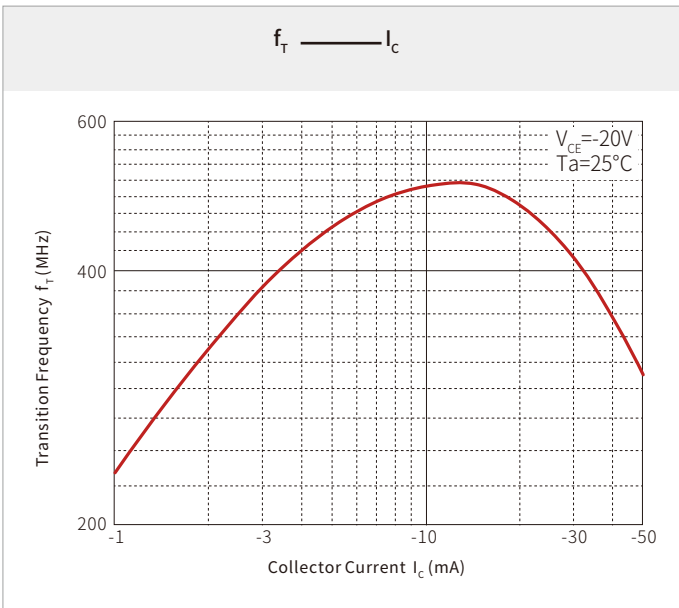
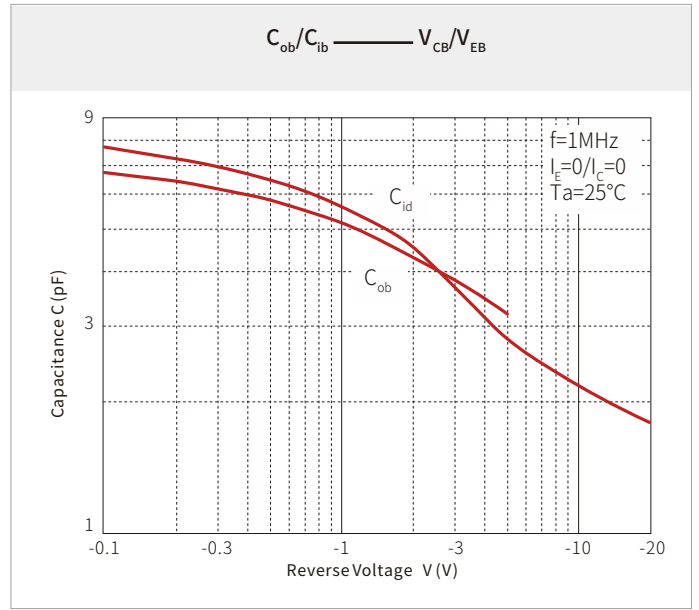
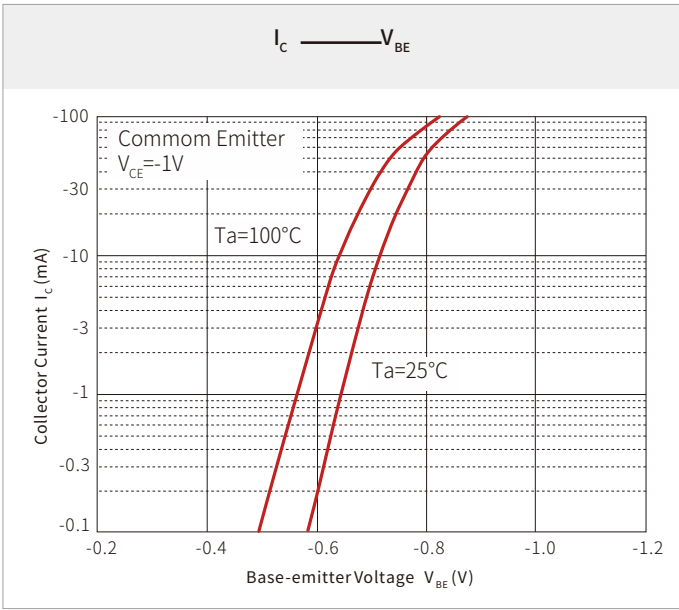
Parameter	Symbol	Test Conditions	Min.	Typ.	Max.	Unit
Collector-base breakdown voltage	V _{(BR)CBO}	I _C =-10μA, I _E =0	-40			V
Collector-emitter breakdown voltage	V _{(BR)CEO}	I _C =-1mA, I _B =0	-40			
Emitter-base breakdown voltage	V _{(BR)EBO}	I _E =-10μA, I _C =0	-5			
Collector cut-off current	I _{CBO}	V _{CB} =-30V, I _E =0			-0.05	μA
Emitter cut-off current	I _{EBO}	V _{EB} =-3.0V, I _C =0			-0.05	
DC current gain	h _{FE(1)}	V _{CE} =-1.0V, I _C =-10mA	100		300	
	h _{FE(2)}	V _{CE} =-1.0V, I _C =-100mA	30			
	h _{FE(3)}	V _{CE} =-1.0V, I _C =-50mA	60			
	h _{FE(4)}	V _{CE} =-1.0V, I _C =-1.0mA	80			
	h _{FE(5)}	V _{CE} =-1.0V, I _C =-0.1mA	60			
Collector-emitter saturation voltage	V _{CE(sat)}	I _C =-10mA, I _B =-1.0mA			-0.25	V
		I _C =-50mA, I _B =-5.0mA			-0.4	
Base-emitter saturation voltage	V _{BE(sat)}	I _C =-10mA, I _B =-1.0mA	-0.65		-0.85	
		I _C =-50mA, I _B =-5.0mA			-0.95	
Transition frequency	f _T	V _{CE} =-20V, I _C =-10mA, f=100MHz	250			MHz
Delay time	t _d	V _{CC} =-3V, V _{BE} =-0.5V, I _C =-10mA, I _{B1} =-1mA			35	nS
Rise time	t _r	V _{CC} =-3V, V _{BE} =-0.5V, I _C =-10mA, I _{B1} =-1mA			35	
Storage time	t _s	V _{CC} =-3V, I _C =-10mA, I _{B1} =I _{B2} =-1mA			225	
Fall time	t _f	V _{CC} =-3V, I _C =-10mA, I _{B1} =I _{B2} =-1mA			75	
Output Capacitance	C _{obo}	V _{CB} =-5.0V, I _E =0, f=1.0MHz			4.5	pF
Input Capacitance	C _{ibo}	V _{BE} =-0.5V, I _C =0, f=1.0MHz			10	pF

CLASSIFICATION OF H_{FE(1)}

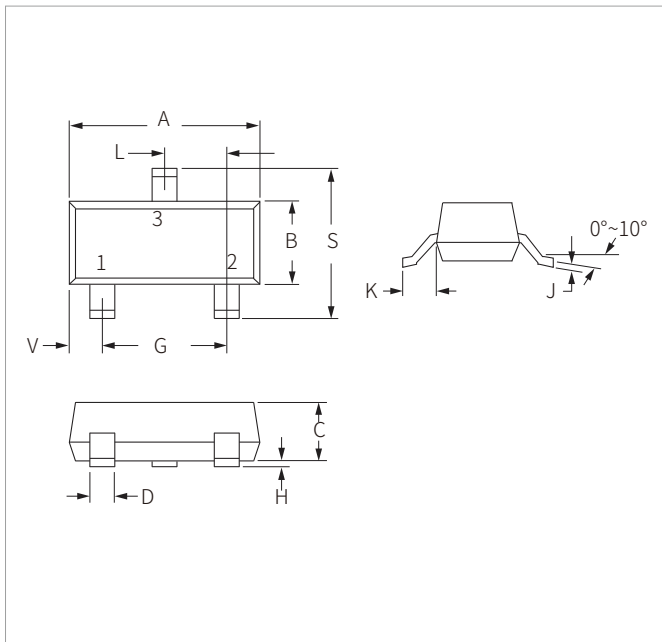
HFE	100-300	
Rank	L	H
Range	100-200	200-300

TYPICAL CHARACTERISTICS



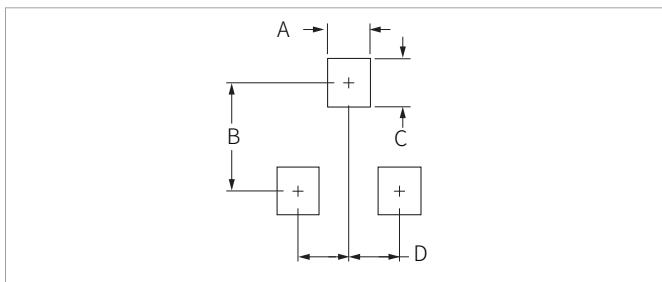


SOT-23 PACKAGE INFORMATION



Ref.	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	2.80	3.05	0.110	0.120
B	1.20	1.40	0.047	0.055
C	0.90	1.15	0.035	0.045
D	0.37	0.50	0.015	0.020
G	1.75	2.05	0.069	0.081
H	0.01	0.100	0.001	0.004
J	0.085	0.180	0.003	0.007
K	0.35	0.69	0.014	0.029
L	0.89	1.02	0.035	0.040
S	2.10	2.65	0.083	0.104
V	0.45	0.60	0.018	0.024

RECOMMENDED PAD LAYOUT DIMENSIONS



Ref.	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	0.71	0.97	0.028	0.038
B	1.88	2.13	0.074	0.084
C	0.71	0.97	0.028	0.038
D	0.81	1.07	0.032	0.042

ORDERING INFORMATION

Part Number	Component Package	QTY/Reel	Reel Size
MMBT3906Q	SOT-23	3000PCS	7"

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By QR Code

Website



Wechat

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