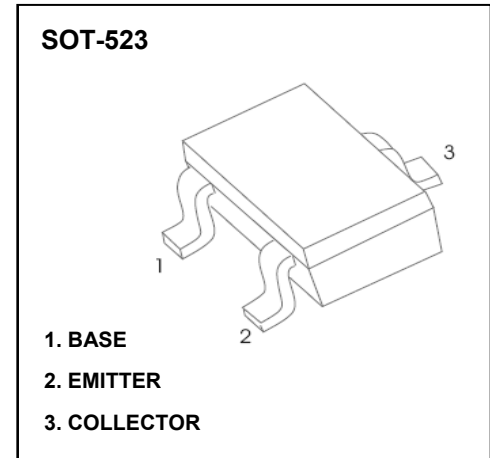


## ■ Features

- Complementary to MMBT3904T
- Power Dissipation of 150mW
- High Stability and High Reliability
- Transistor(PNP)

## ■ Mechanical Data

- package:SOT-523
- Flammability rating of epoxy resin: UL 94V-0
- Mounting Position: Any



## ■ Ordering Information

Part Number	Package	Marking	Packing	Quantity per reel	Reel Size
MMBT3906T	SOT-523	3N	Tape & Reel	3,000 PCS	7 inches

## ■ Maximum Ratings & Thermal Characteristics(Ratings at 25°C ambient temperature unless otherwise specified.)

Parameters	Symbol	Value	Unit
Collector-Base Voltage	$V_{CBO}$	-40	V
Collector-Emitter Voltage	$V_{CEO}$	-40	V
Emitter -Base Voltage	$V_{EBO}$	-5	V
Collector Current-Continuous	$I_c$	-200	mA
Collector Power Dissipation	$P_c$	150	mW
Junction Temperature	$T_j$	150	°C
Storage Temperature	$T_{stg}$	-55-+150	°C
Thermal resistance From junction to ambient	$R_{\theta JA}$	833	°C/W

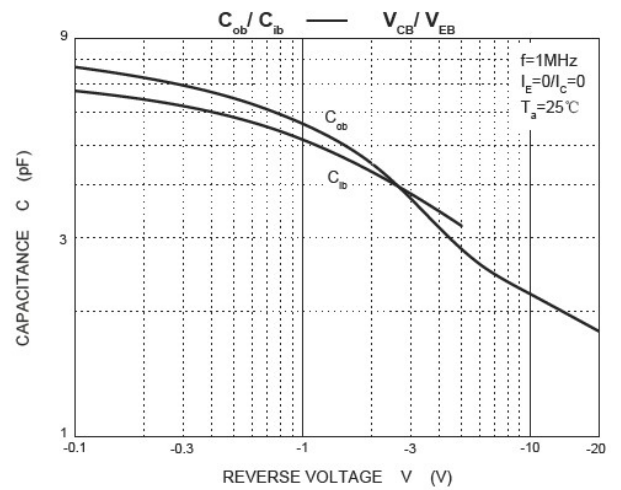
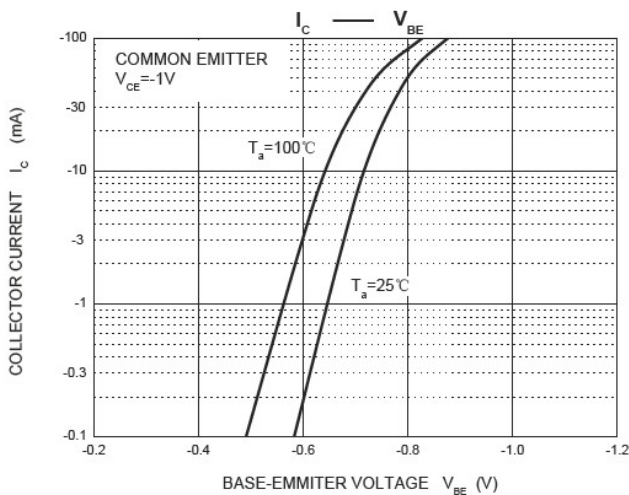
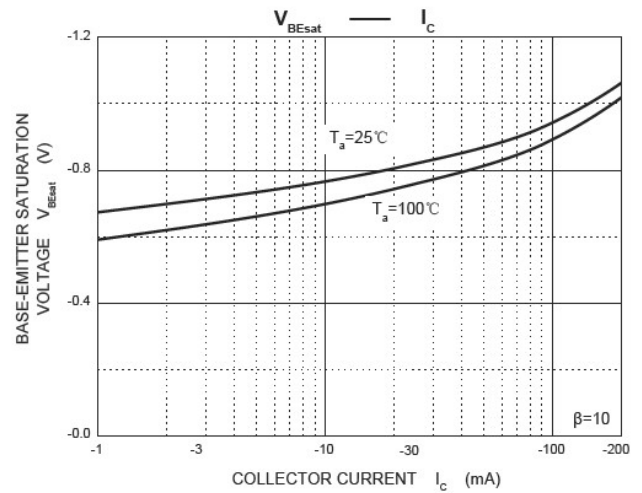
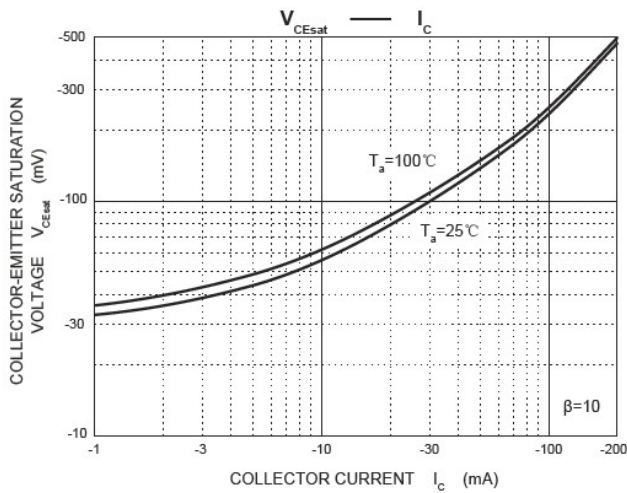
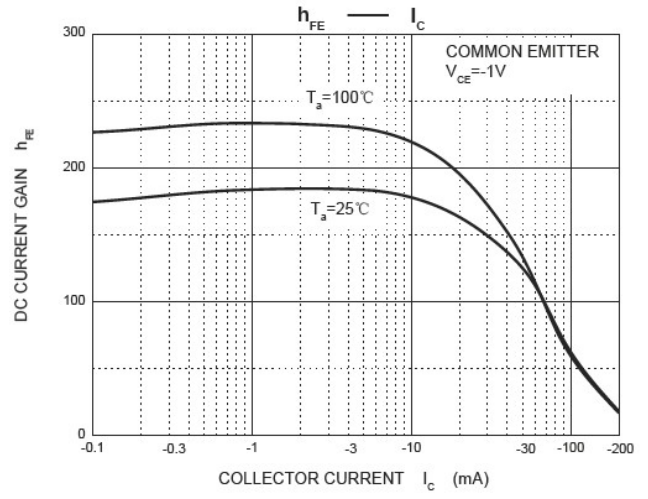
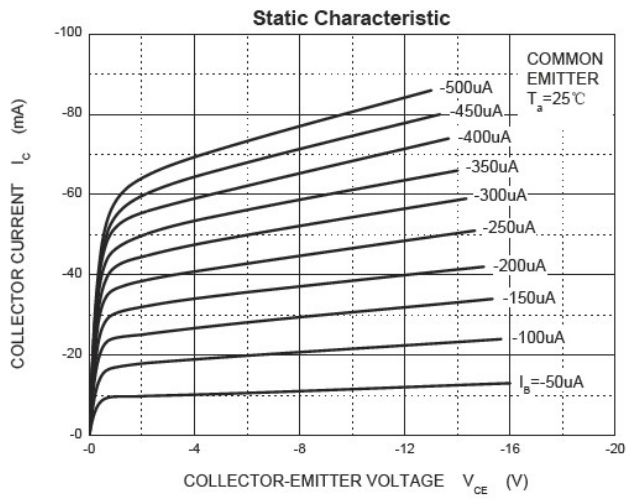
**Electrical Characteristics**(Ratings at 25°C ambient temperature unless otherwise specified)

Parameter	Symbols	Test Condition	Limits		Unit
			Min	Max	
Collector-base breakdown voltage	<b>V(BR)CBO</b>	IC=-10uA, IE=0	-40		V
Collector-emitter breakdown voltage	<b>V(BR)CEO</b>	IC=-1mA, IB=0	-40		V
Emitter-base breakdown voltage	<b>V(BR)EBO</b>	IE=-10uA, IC=0	-5		V
Collector cut-off current	<b>ICBO</b>	VCB=-40V, IE=0		-100	nA
Emitter cut-off current	<b>IEBO</b>	VEB=-5V, IC=0		-100	nA
Collector cut-off current	<b>ICEX</b>	VCE=-30V, VEB(off)=-3V		-50	nA
DC current gain	<b>hFE(1)</b>	VCE=-1V, IC=-0.1mA	60		
	<b>hFE(2)</b>	VCE=-1V, IC=-1mA	80		
	<b>hFE(3)</b>	VCE=-1V, IC=-10mA	100	300	
	<b>hFE(4)</b>	VCE=-1V, IC=-50mA	60		
	<b>hFE(5)</b>	VCE=-2V, IC=-100mA	30		
Collector-emitter saturation voltage	<b>VCE(sat)</b>	IC=-10mA, IB=-1mA		-0.25	V
		IC=-50mA, IB=-5mA		-0.40	V
Base -emitter saturation voltage	<b>VBE(sat)</b>	IC=-10mA, IB=-1mA	-0.65	-0.85	V
		IC=-50mA, IB=-5mA		-0.95	V
Transition frequency	<b>fT</b>	VCE=-20V, IC=-10mA, f=100MHz	250		MHz
Collector output capacitance	<b>Cob</b>	VCB=-5V, IE=0, f=1MHz		4.5	pF
Input capacitance	<b>Cib</b>	VEB=-5V, IE=0, f=1MHz		10	pF
Noise figure	<b>NF</b>	VCE=-5V, IC=-0.1mA		4	dB
Delay time	<b>td</b>	VCC=-3V, VBE(off)=-0.5V, IC=-10mA, IB1=-1mA		35	nS
Rise time	<b>tr</b>			35	nS
Storage time	<b>ts</b>	VCC=-3V, IC=-10mA, IB1=IB2=-1mA		225	nS
Fall time	<b>tf</b>			75	nS

\*Pulse test: pulse width≤300us,duty cycle≤2.0%

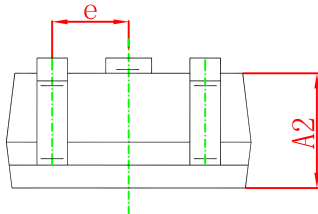
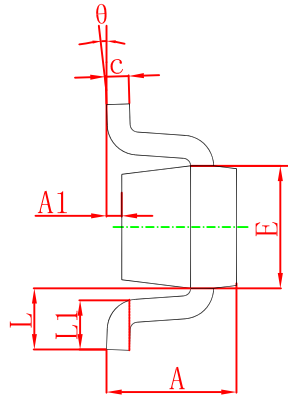
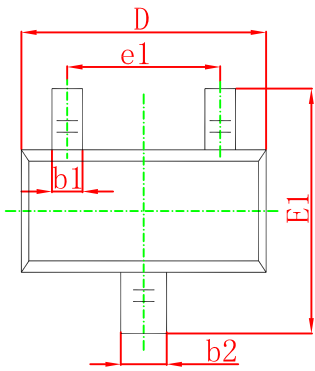


■ Typical Characteristics





■ SOT-523 Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	0.700	0.900	0.028	0.035
A1	0.000	0.100	0.000	0.004
A2	0.700	0.800	0.028	0.031
b1	0.150	0.250	0.006	0.010
b2	0.250	0.350	0.010	0.014
c	0.100	0.200	0.004	0.008
D	1.500	1.700	0.059	0.067
E	0.700	0.900	0.028	0.035
E1	1.450	1.750	0.057	0.069
e	0.500 TYP.		0.020 TYP.	
e1	0.900	1.100	0.035	0.043
L	0.400 REF.		0.016 REF.	
L1	0.260	0.460	0.010	0.018
θ	0°	8°	0°	8°

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