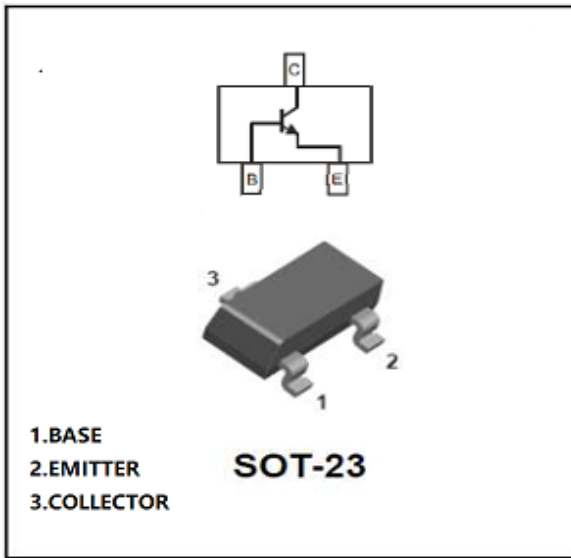


NPN General Purpose Amplifier transistors



Features

- Epoxy meets UL-94 V-0 flammability rating
- Moisture Sensitivity Level 1
- High Conductance
- Surface Mount Package Ideally Suited for Automatic Insertion

Mechanical Data

- **Package:** SOT-23
Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant, halogen-free
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Marking:** MMBTA05=1H,MMBTA06=1GM

■Maximum Ratings (Ta=25°C unless otherwise noted)

Item	Symbol	Rating	Unit
Collector-Base Voltage	VCBO MMBTA05 MMBTA06	60 80	V
Collector-Emitter Voltage	VCEO MMBTA05 MMBTA06	60 80	V
Emitter-Base Voltage	VEBO	4	V
Collector Current -Continuous	IC	500	mA
Total Device Dissipation	PC	300	mW
Junction Temperature	Tj	-55 to +150	°C
Storage Temperature	TSTG	-55 to +150	°C



MMBTA05 THRU MMBTA06

RoHS
COMPLIANT

■Electrical Characteristics (T_a=25°C Unless otherwise specified)

Item	Symbol	Unit	Conditions	Min	Max
Collector-base breakdown voltage	V _{(BR)CBO}	V	IC=100μA,IE=0 MMBTA05 MMBTA06	60 80	
Collector-emitter breakdown voltage	V _{(BR)CEO}	V	IC=1mA,IB=0 MMBTA05 MMBTA06	60 80	
Emitter-base breakdown voltage	V _{(BR)EBO}	V	IE=100μA,IC=0	4	
Collector cut-off current	I _{CBO}	nA	V _{CB} =60V,IE=0		100
Collector cut-off current	I _{CEO}	nA	V _{CE} =60V,IB=0		100
Collector cut-off current	I _{EBO}	nA	VEB=3V,IC=0		100
DC current gain	h _{FE}		V _{CE} =1V,IC=10mA	100	400
	h _{FE}		V _{CE} =1V,IC=100mA	100	
Collector-emitter saturation voltage	V _{CE(sat)}	V	IC=100mA,IB=10mA		0.25
Base-emitter saturation voltage	V _{BE(sat)*}	V	IC=100mA,IB=10mA		1.2

■Other Characteristics (T_a=25°C Unless otherwise specified)

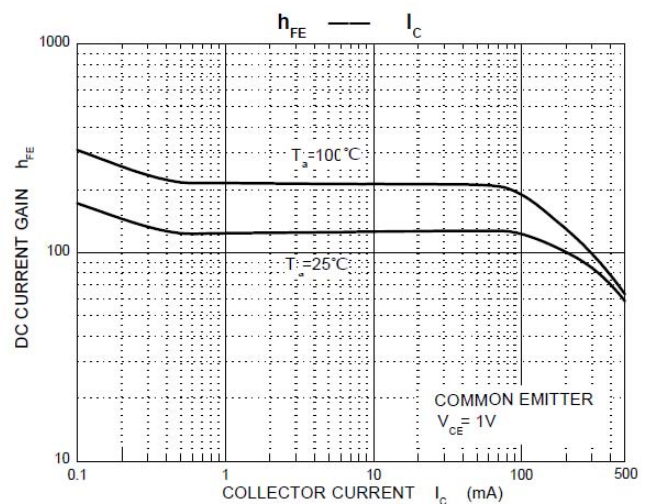
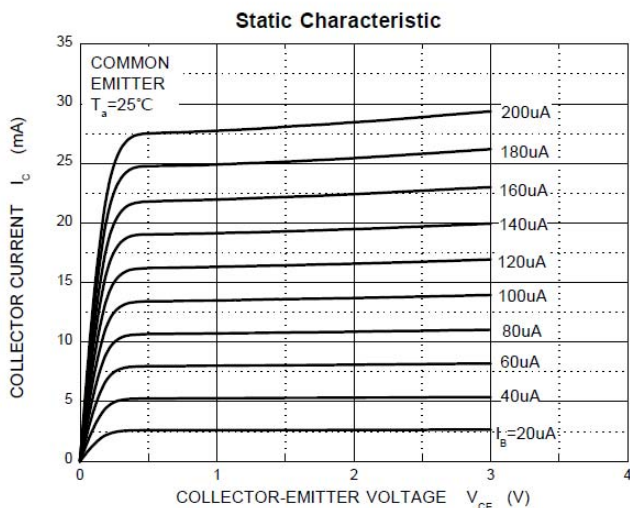
Item	Symbol	Unit	Conditions	Min	Max
Transition frequency	F _t	MHz	V _{CE} =2V,IC=10mA,f=100MHz	100	

■Ordering Information (Example)

PREFERRED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
MMBTA05 MMBTA06	F2	Approximate 0.008	3000	30000	120000	7" reel

■Characteristics(Typical)

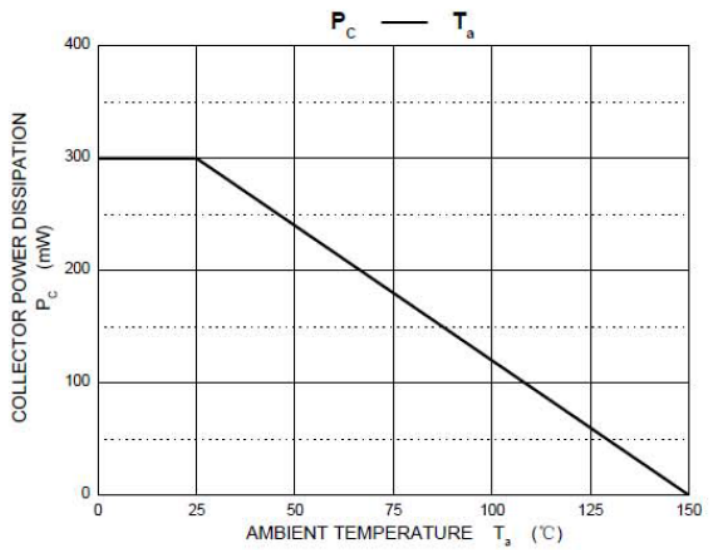
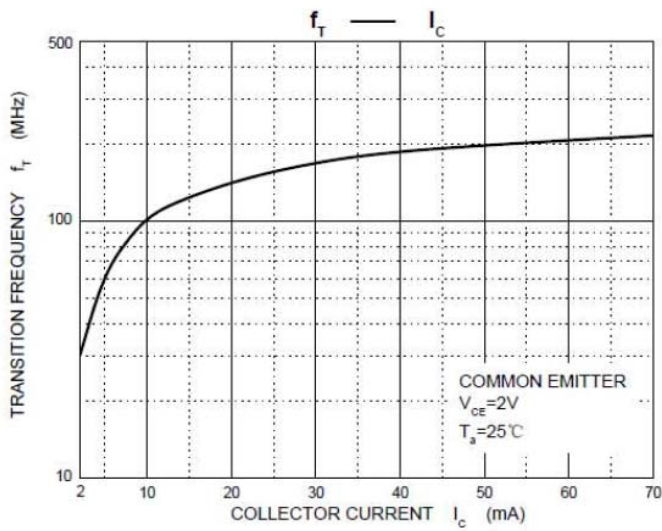
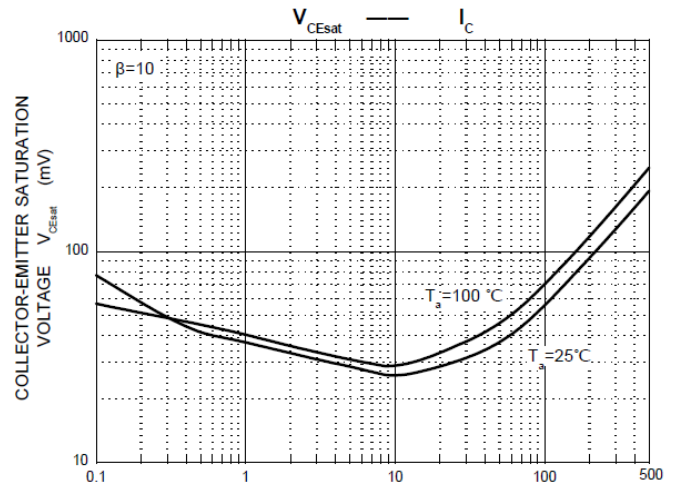
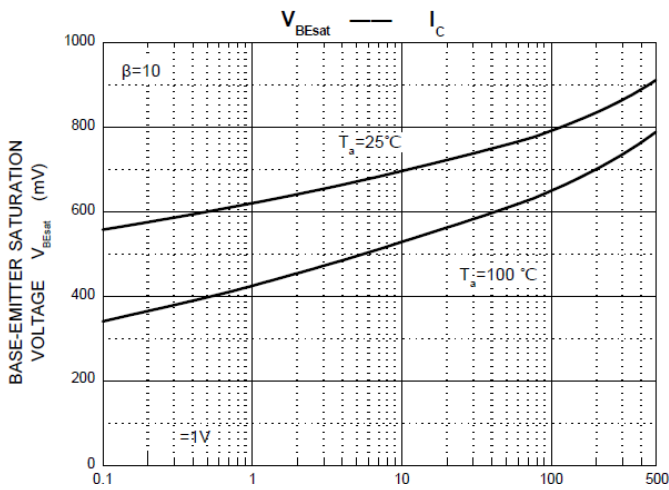
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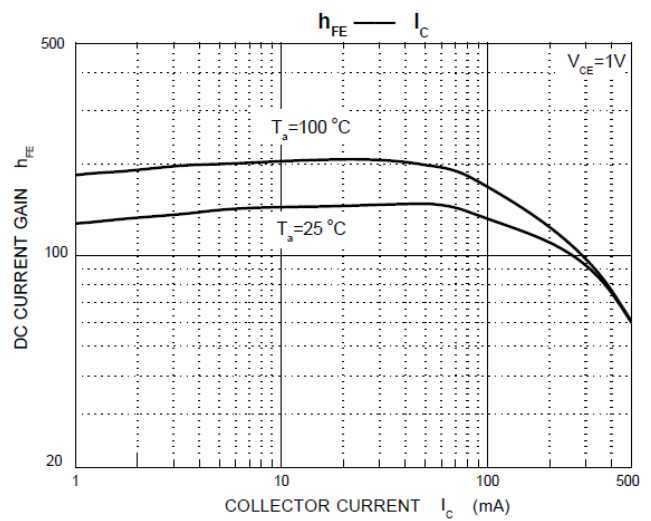
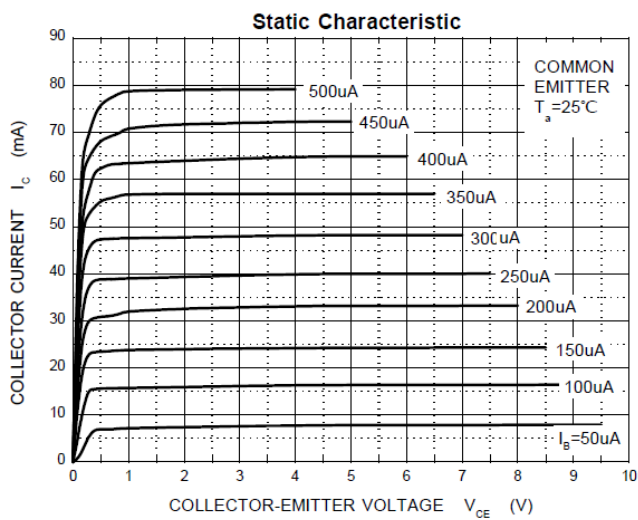


MMBTA05 THRU MMBTA06

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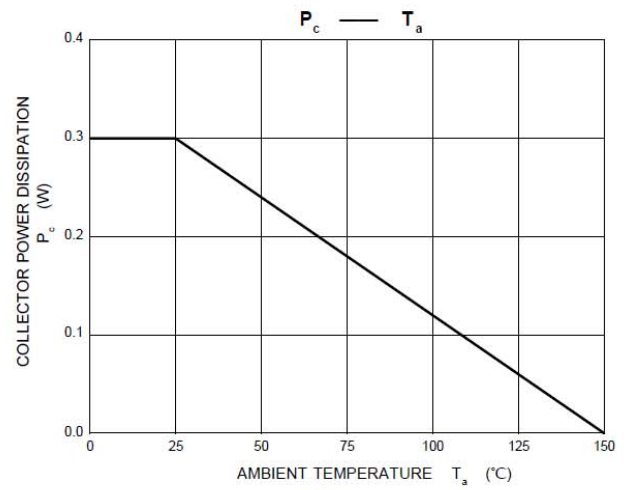
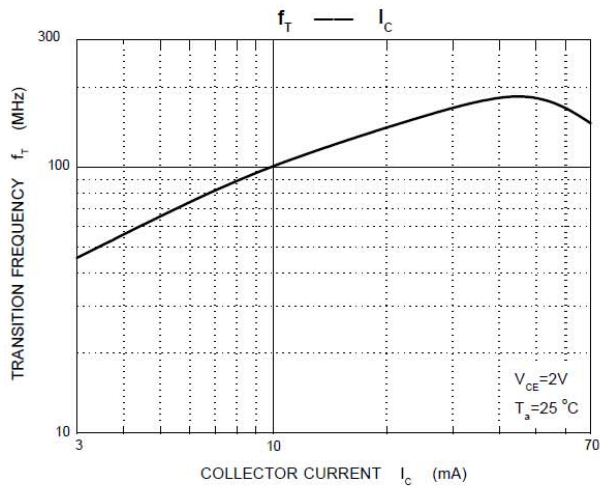
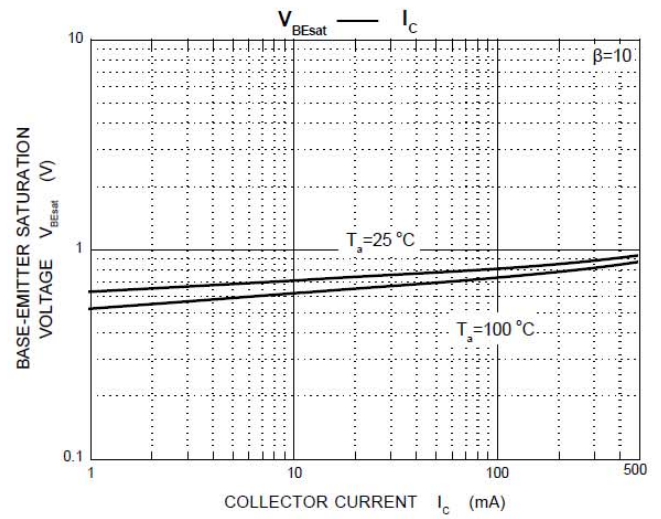
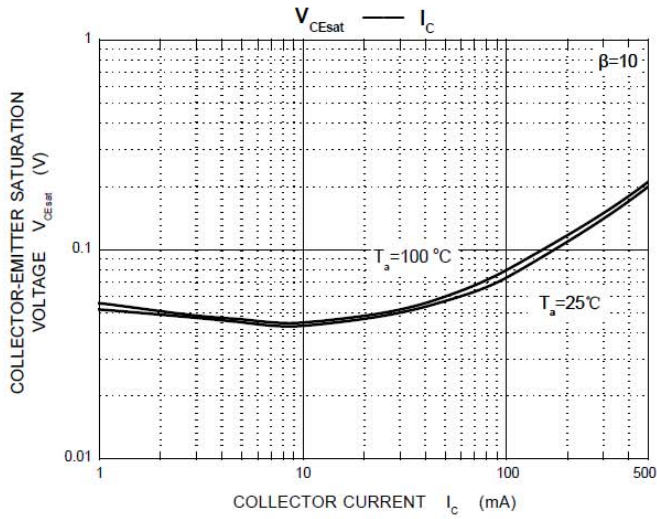
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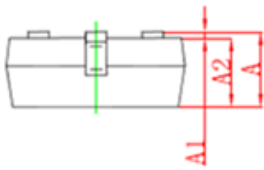
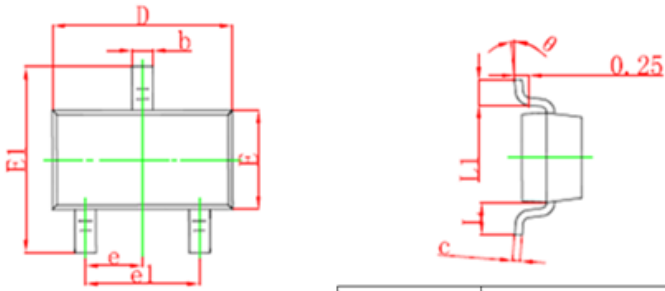
MMBTA05 THRU MMBTA06

RoHS
COMPLIANT



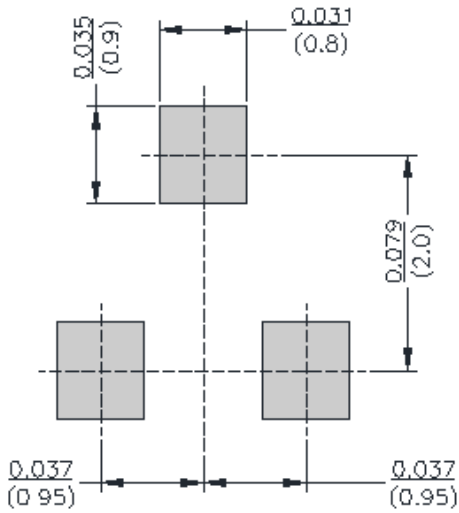


■SOT-23 Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.900	1.150	0.035	0.045
A1	0.000	0.100	0.000	0.004
A2	0.900	1.050	0.035	0.041
b	0.300	0.500	0.012	0.020
c	0.100	0.200	0.004	0.008
D	2.800	3.000	0.110	0.118
E	1.200	1.400	0.047	0.055
E1	2.250	2.550	0.089	0.100
e	0.950TYP		0.037TYP	
e1	1.800	2.000	0.071	0.079
L	0.550REF		0.022REF	
L1	0.300	0.500	0.012	0.020
θ	0°	8°	0°	8°

■SOT-23Suggested Pad Layout





Disclaimer

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The product listed herein is designed to be used with ordinary electronic equipment or devices, and not designed to be used with equipment or devices which require high level of reliability and the malfunction of which would directly endanger human life (such as medical instruments, transportation equipment, aerospace machinery, nuclear-reactor controllers, fuel controllers and other safety devices), Yangjie or anyone on its behalf, assumes no responsibility or liability for any damages resulting from such improper use of sale.

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