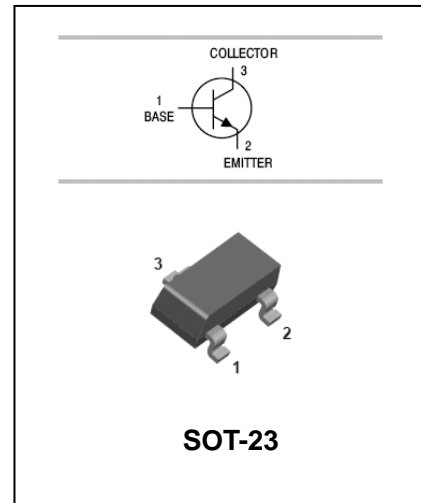


NPN High Voltage Amplifier

MMBTA42

FEATURES

- Epitaxial planar die construction.
- Complementary PNP type available (MMBTA92).
- Ideal for medium power amplification and switching.



APPLICATIONS

- NPN High voltage amplifier.

ORDERING INFORMATION

Type No.	Marking	Package Code
MMBTA42	1D	SOT-23

MAXIMUM RATING @ Ta=25°C unless otherwise specified

Symbol	Parameter	Value	UNIT
V _{CBO}	collector-base voltage	300	V
V _{CEO}	collector-emitter voltage	300	V
V _{EBO}	emitter-base voltage	6	V
I _C	collector current (DC)	0.2	A
P _C	Collector dissipation	0.35	W
T _j , T _{stg}	junction and storage temperature	-55-150	°C

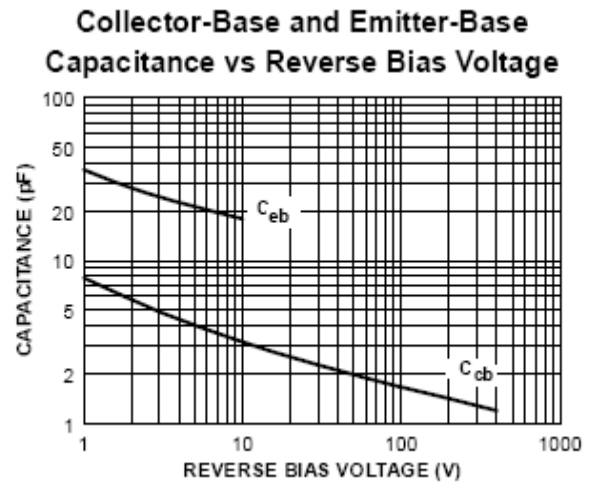
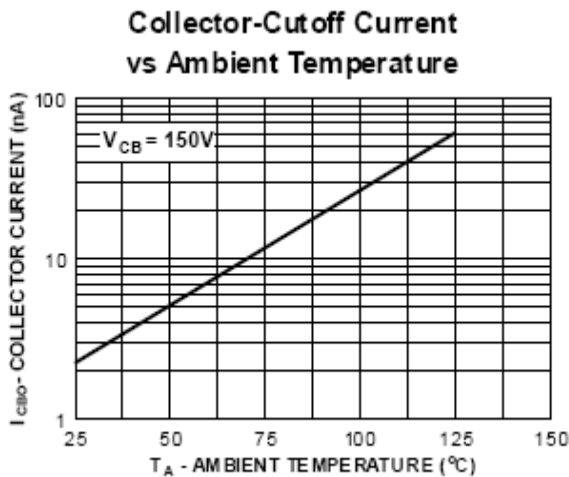
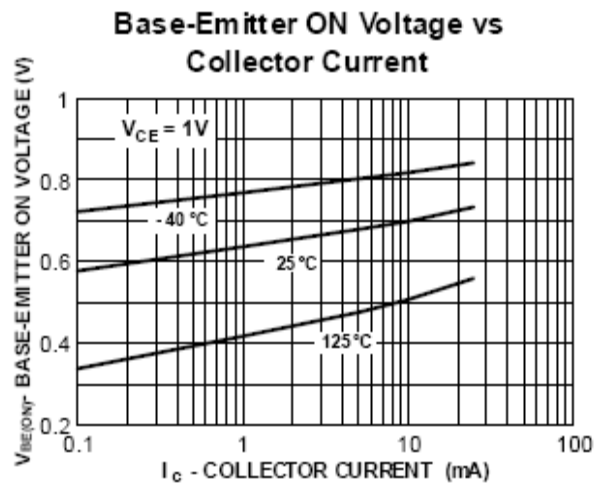
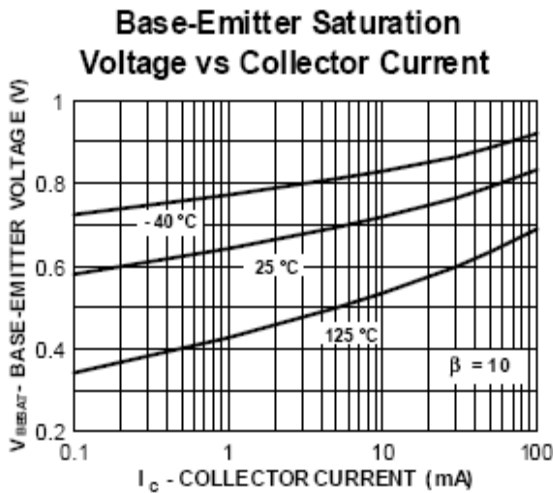
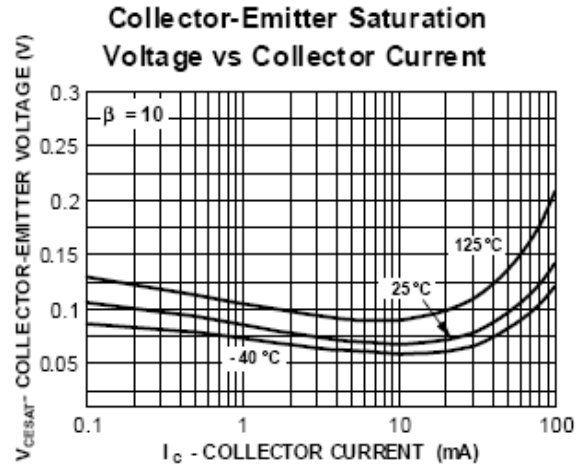
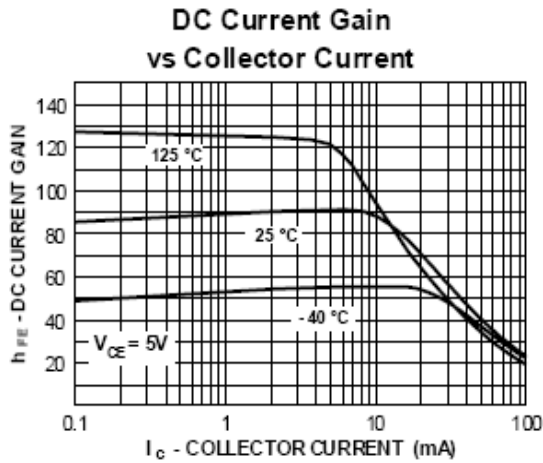
ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

Symbol	Parameter	Test conditions	MIN.	MAX.	UNIT
V _{(BR)CBO}	Collector-base breakdown voltage	I _C =100μA, I _E =0	300	-	V
V _{(BR)CEO}	Collector-emitter breakdown voltage	I _C =1.0mA, I _B =0	300	-	V
V _{(BR)EBO}	Emitter-base breakdown voltage	I _E =100μA, I _C =0	6	-	V
I _{CBO}	collector cut-off current	I _E = 0; V _{CB} = 200V	-	0.1	μA
I _{EBO}	emitter cut-off current	I _C = 0; V _{EB} = 6V	-	0.1	μA
h _{FE}	DC current gain	V _{CE} = 10V; I _C =1mA V _{CE} = 10V; I _C = 10mA V _{CE} = 10V; I _C = 30mA	25 40 40	- - -	
V _{CE(sat)}	collector-emitter saturation voltage	I _C = 20mA; I _B = 2mA	-	0.5	V
V _{BE(sat)}	base-emitter saturation voltage	I _C = 20mA; I _B = 2mA	-	0.9	V
C _{ob}	Collector output capacitance	V _{CB} =20V, I _E =0; f=1.0MHz		3.0	pF
f _T	transition frequency	I _C =10mA; V _{CE} = 20V f=100MHz	50	-	MHz

NPN High Voltage Amplifier

MMBTA42

TYPICAL CHARACTERISTICS @ $T_a=25^\circ\text{C}$ unless otherwise specified



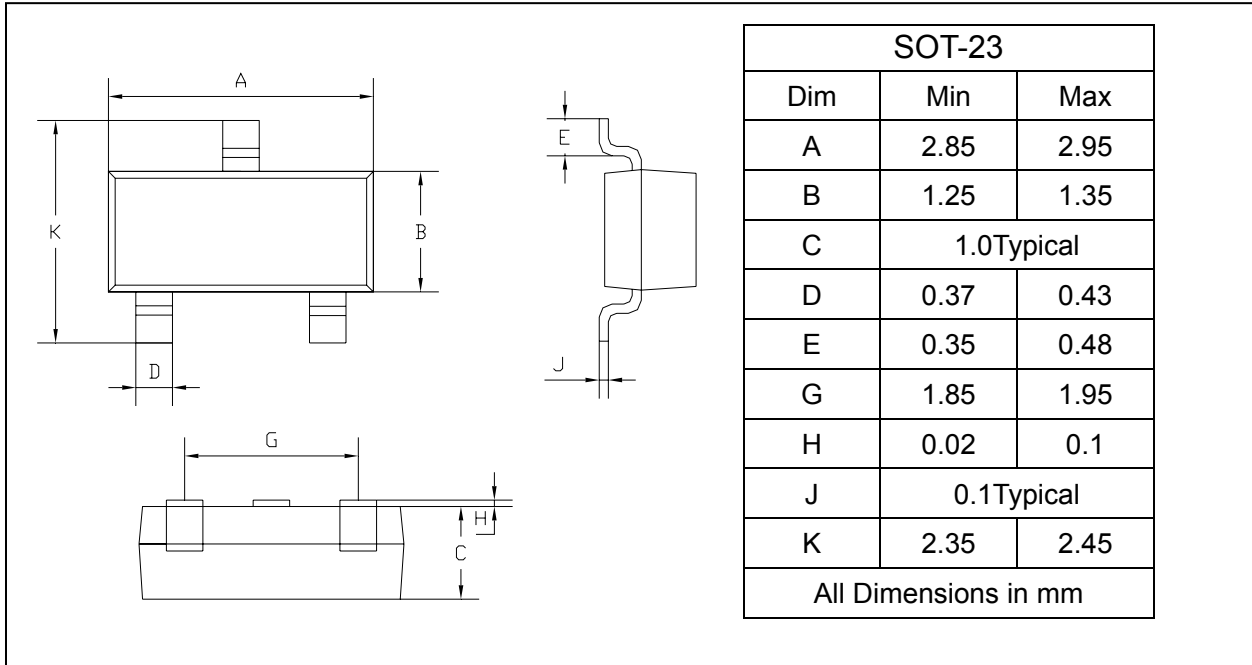
NPN High Voltage Amplifier

MMBTA42

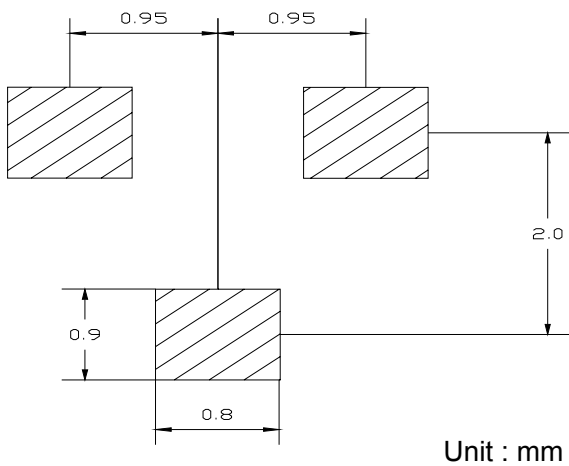
PACKAGE OUTLINE

Plastic surface mounted package

SOT-23



SOLDERING FOOTPRINT



PACKAGE INFORMATION

Device	Package	Shipping
MMBTA42	SOT-23	3000/Tape&Reel