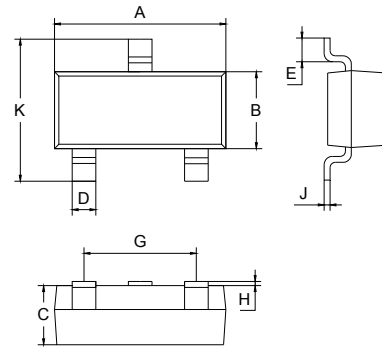


### FEATURES

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

### APPLICATIONS

- NPN High voltage amplifier.



SOT-23		
Dim	Min	Max
A	2.70	3.10
B	1.10	1.50
C	1.0 Typical	
D	0.4 Typical	
E	0.35	0.48
G	1.80	2.00
H	0.02	0.1
J	0.1 Typical	
K	2.20	2.60
All Dimensions in mm		

### ORDERING INFORMATION

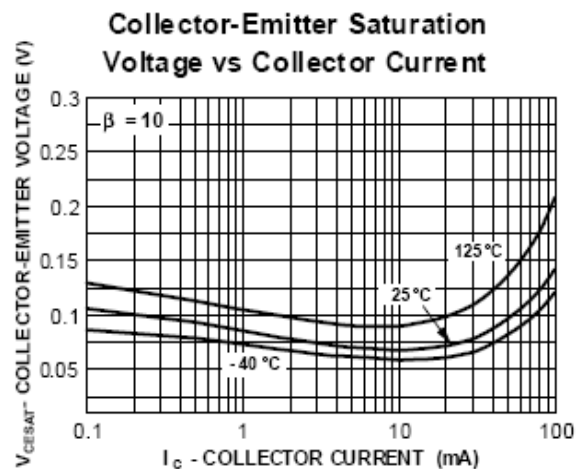
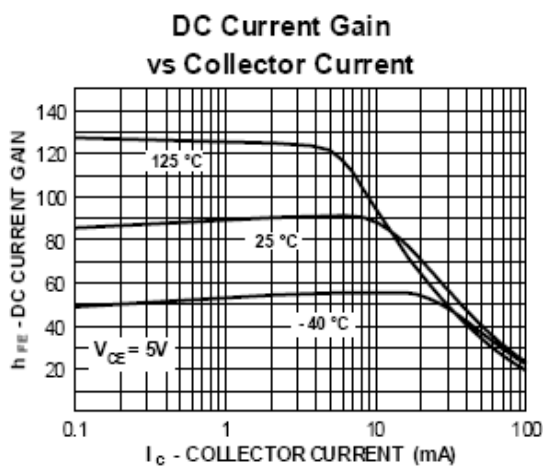
Type No.	Marking	Package Code
MMBTA42	1D	SOT-23

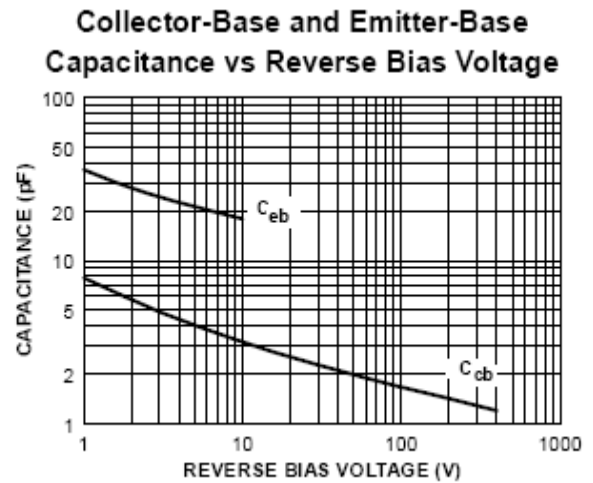
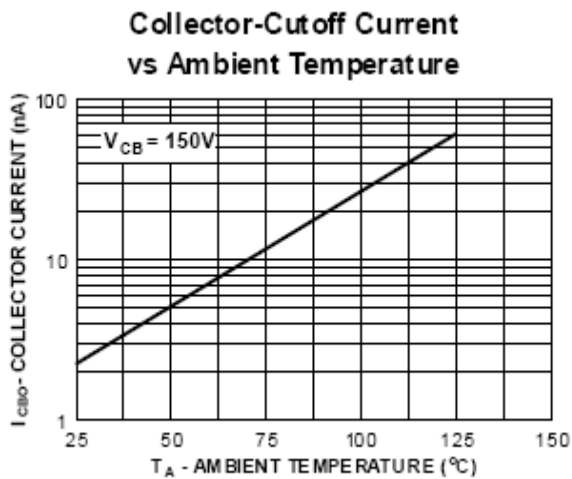
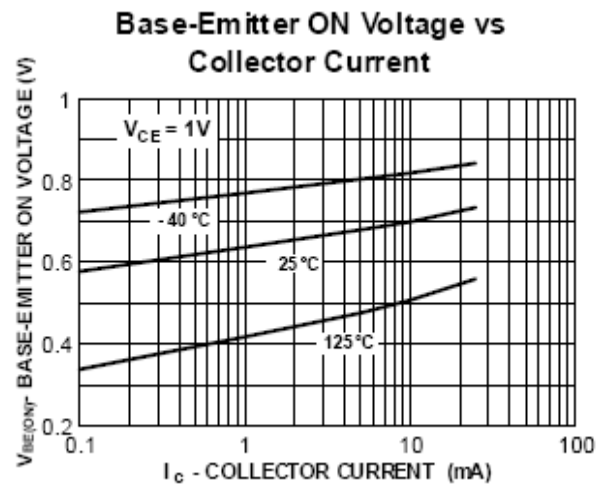
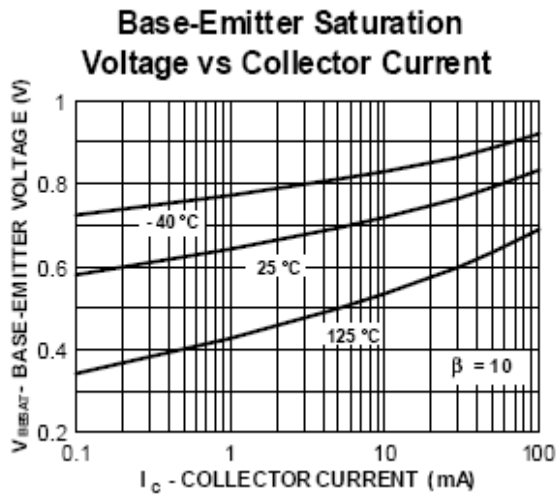
### MAXIMUM RATING @ Ta=25°C unless otherwise specified

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
$P_D$	Total device dissipation	0.35	W
$R_{\theta JA}$	Thermal resistance, junction to ambient	357	°C/W
$T_J, T_{stg}$	Junction and storage temperature	-55 to +150	°C

**ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified**

Symbol	Parameter	Test conditions	MIN.	MAX.	UNIT
$V_{(BR)CBO}$	Collector-base breakdown voltage	$I_C=100\mu A, I_E=0$	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	$I_E=100\mu A, I_C=0$	6	-	V
$I_{CBO}$	collector cut-off current	$I_E = 0; V_{CB} = 200V$	-	0.1	$\mu A$
$I_{EBO}$	emitter cut-off current	$I_C = 0; V_{EB} = 6V$	-	0.1	$\mu A$
$h_{FE}$	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

**TYPICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified**




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

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