

## NPN General Purpose Transistor

## MMBTA05/MMBTA06

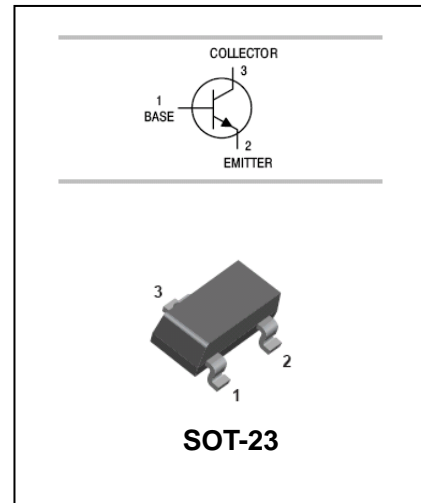
### FEATURES

- Epitaxial planar die construction.
- Complementary PNP type available (MMBTA55/MMBTA56).
- Also available in lead free version.



### APPLICATIONS

- Ideal for medium power amplification and switching



### ORDERING INFORMATION

Type No.	Marking	Package Code
MMBTA05	1H	SOT-23
MMBTA06	1GM	SOT-23

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

Symbol	Parameter	Value	UNIT
V <sub>CBO</sub>	collector-base voltage	MMBTA05	60
		MMBTA06	80
V <sub>CEO</sub>	collector-emitter voltage	MMBTA05	60
		MMBTA06	80
V <sub>EBO</sub>	emitter-base voltage	4	V
I <sub>C</sub>	collector current (DC)	0.5	A
P <sub>C</sub>	Collector dissipation	0.35	W
R <sub>θJA</sub>	Thermal Resistance, Junction to Ambient	357	°C/W
T <sub>j</sub> , T <sub>stg</sub>	junction and storage temperature	-55-150	°C

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## MMBTA05/MMBTA06

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

Symbol	Parameter	Test conditions	MIN.	MAX.	UNIT
$V_{(BR)CBO}$	Collector-base breakdown voltage MMBTA05 MMBTA06	$I_C=100\mu A, I_E=0$	60 80		V
$V_{(BR)CEO}$	Collector-emitter breakdown voltage MMBTA05 MMBTA06	$I_C=1.0mA, I_B=0$	60 80		V
$V_{(BR)EBO}$	Emitter-base breakdown voltage	$I_E=100\mu A, I_C=0$	4		V
$I_{CBO}$	collector cut-off current MMBTA05 MMBTA06	$I_E = 0; V_{CB} = 60V$ $I_E = 0; V_{CB} = 80V$	-	0.1	$\mu A$
$I_{CEO}$	collector cut-off current MMBTA05 MMBTA06	$I_E = 0; V_{CE} = 60V$ $I_E = 0; V_{CE} = 80V$	-	0.1	$\mu A$
$h_{FE}$	DC current gain	$V_{CE} = 1V; I_C = 10mA$ $V_{CE} = 1V; I_C = 100mA$	100	-	
$V_{CE(sat)}$	collector-emitter saturation voltage	$I_C = 100mA; I_B = 10mA$	-	0.25	V
$f_T$	transition frequency	$I_C = 10mA; V_{CE} = 2.0V;$ $f = 100MHz$	100	-	MHz

### PACKAGE OUTLINE

Plastic surface mounted package

SOT-23

