

## PNP General Purpose Transistor

## MMBTA63/MMBTA64

### FEATURES

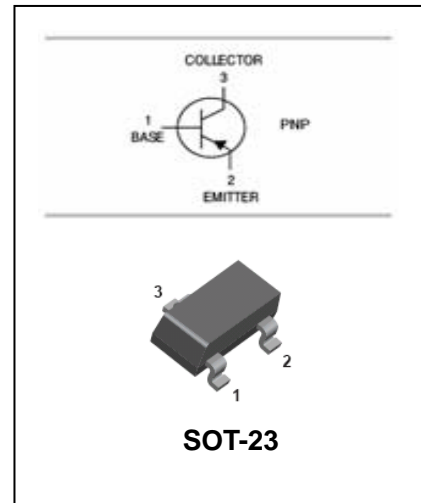
- Epitaxial planar die construction.
- Complementary NPN type available (MMBTA13/MMBTA14).
- High current gain.



Lead-free

### APPLICATIONS

- Ideal for medium power amplification and switching



### ORDERING INFORMATION

Type No.	Marking	Package Code
MMBTA63	2U	SOT-23
MMBTA64	2V	SOT-23

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

Symbol	Parameter	Value	UNIT
V <sub>CBO</sub>	collector-base voltage	MMBTA63	-30
		MMBTA64	-30
V <sub>CEO</sub>	collector-emitter voltage	MMBTA63	-30
		MMBTA64	-30
V <sub>EBO</sub>	emitter-base voltage	-10	V
I <sub>C</sub>	collector current (DC)	-0.3	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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## MMBTA63/MMBTA64

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

Symbol	Parameter	Test conditions	MIN.	MAX.	UNIT
$V_{(BR)CBO}$	Collector-base breakdown voltage MMBTA63 MMBTA64	$I_C = -100\mu A, I_E = 0$	-30 -30	-	V
$V_{(BR)CEO}$	Collector-emitter breakdown voltage MMBTA63 MMBTA64	$I_C = -0.1mA, I_B = 0$	-30 -30	-	V
$V_{(BR)EBO}$	Emitter-base breakdown voltage	$I_E = -100\mu A, I_C = 0$	-10	-	V
$I_{CBO}$	collector cut-off current	$I_E = 0; V_{CB} = -30V$	-	-0.1	$\mu A$
$I_{CEO}$	collector cut-off current	$I_E = 0; V_{CE} = -10V$	-	-0.1	$\mu A$
$h_{FE}$	DC current gain	MMBTA63 $V_{CE} = -5V; I_C = -10mA$	5000	-	
		MMBTA64 $V_{CE} = -5V; I_C = -10mA$	10000		
		MMBTA63 $V_{CE} = -5V; I_C = -100mA$	10000		
		MMBTA64 $V_{CE} = -5V; I_C = -100mA$	20000		
$V_{CE(sat)}$	collector-emitter saturation voltage	$I_C = -100mA; I_B = -0.1mA$	-	-1.5	V
$f_T$	transition frequency	$I_C = -10mA; V_{CE} = -5.0V;$ $f = 100MHz$	125	-	MHz

### PACKAGE OUTLINE

Plastic surface mounted package

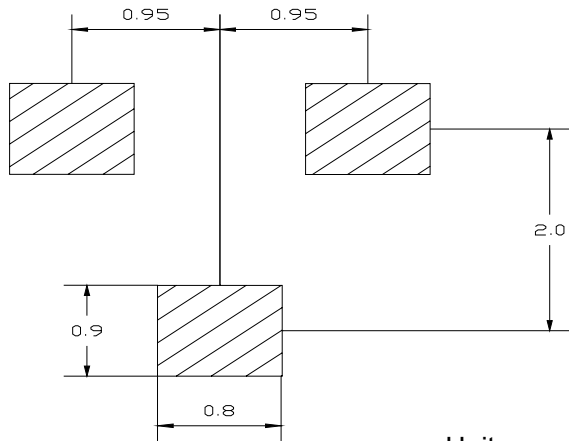
SOT-23

	<b>SOT-23</b>		
	Dim	Min	Max
A	2.85	2.95	
B	1.25	1.35	
C	1.0Typical		
D	0.37	0.43	
E	0.35	0.48	
G	1.85	1.95	
H	0.02	0.1	
J	0.1Typical		
K	2.35	2.45	
All Dimensions in mm			

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**SOLDERING FOOTPRINT**

Unit : mm

**PACKAGE INFORMATION**

Device	Package	Shipping
MMBTA63/MMBTA64	SOT-23	3000/Tape&Reel