

# PNP General Purpose Transistor

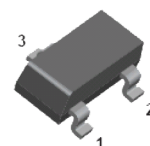
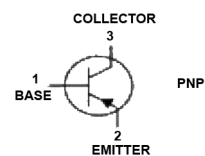


## Features:

- Epitaxial planar die construction.
- Complementary NPN types available (MMBTA05/MMBTA06)

## Applications:

- Ideal for medium NPN amplification and switching



SOT-23

## Maximum Rating @ $T_A=25^{\circ}\text{C}$ unless otherwise specified

Parameter	Symbol	Value	Units
Collector-Base Voltage	$V_{\text{CBO}}$	-80	V
Collector-Emitter Voltage	$V_{\text{CEO}}$	-80	
Emitter-Base Voltage	$V_{\text{EBO}}$	-4	
Collector Current (DC)	$I_{\text{C}}$	-0.5	A
Collector Dissipation	$P_{\text{C}}$	0.3	W
Thermal Resistance, Junction to Ambient	$R_{\theta\text{JA}}$	417	$^{\circ}\text{C/W}$
Junction and Storage Temperature	$T_{\text{j}}, T_{\text{stg}}$	-55 to +150	$^{\circ}\text{C}$

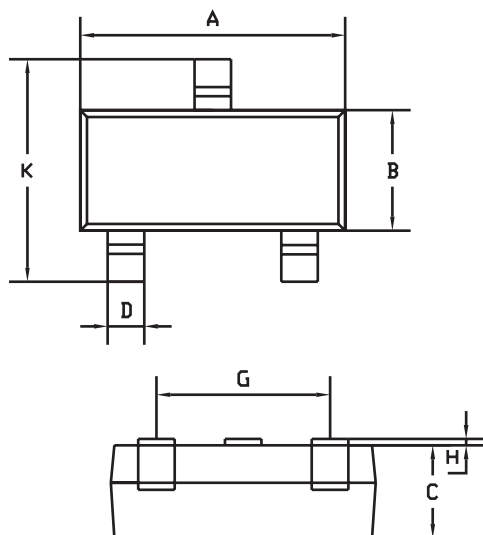
## Electrical Characteristics @ $T_A=25^{\circ}\text{C}$ unless otherwise specified

Parameter	Symbol	Test conditions	Min.	Max.	Unit
Collector-Base Breakdown Voltage	$V_{(\text{BR})\text{CBO}}$	$I_{\text{C}} = -100\mu\text{A}, I_{\text{E}} = 0$	-80	-	V
Collector-Emitter Breakdown Voltage	$V_{(\text{BR})\text{CEO}}$	$I_{\text{C}} = -1\text{mA}, I_{\text{B}} = 0$	-80	-	
Emitter-Base Breakdown Voltage	$V_{(\text{BR})\text{EBO}}$	$I_{\text{E}} = -100\mu\text{A}, I_{\text{C}} = 0$	-4	-	

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Parameter	Symbol	Test conditions	Min.	Max.	Unit
Collector Cut-Off Current	$I_{CBO}$	$I_E = 0, V_{CB} = -80V$	-	-0.1	$\mu A$
Collector Cut-Off Current	$I_{CEO}$	$I_B = 0, V_{CB} = -80V$	-		
DC Current Gain	$h_{FE}$	$V_{CE} = -1V, I_C = -10mA$ $V_{CE} = -1V, I_C = -100mA$	100 100	- -	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = -100mA, I_B = -10mA$	-	-0.25	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C = -100mA, I_{CE} = -1V$	-	-1.2	
Transition Frequency	$f_T$	$I_C = -100mA, V_{CE} = -1V$ $f = 100MHz$	50	-	MHz

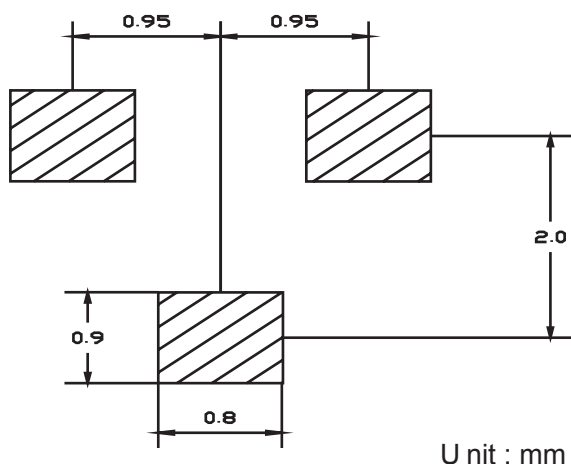
## Plastic Surface Mounted Package:



SOT-23		
Dim	Min	Max
A	2.85	2.95
B	1.25	1.35
C	1 Typical	
D	0.37	0.43
E	0.35	0.48
G	1.85	1.95
H	0.02	0.1
J	0.1 Typical	
K	2.35	2.45
All Dimensions in mm		

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## Soldering Footprint:



## Part Number Table

Description	Part Number
Transistor, Bipolar, NPN, PNP, -80V, -500mA, SOT-23-3	MMBTA56-7-F

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