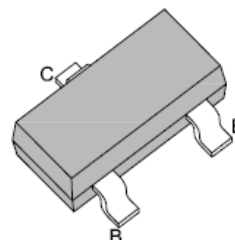


SMD General Purpose Transistor (NPN)

Features

- NPN Silicon Epitaxial Planar Transistor for Switching and Amplifier Applications
- RoHS compliance



SOT-23



Mechanical Data

Case:	SOT-23, Plastic Package
Terminals:	Solderable per MIL-STD-202G, Method 208
Weight:	0.008 gram

Maximum Ratings *(T_{Ambient}=25°C unless noted otherwise)*

Symbol	Description	MMBTA05	MMBTA06	Unit
	Marking Code	1H	1G	
V_{CB0}	Collector-Base Voltage	60	80	V
V_{CEO}	Collector-Emitter Voltage	60	80	V
V_{EBO}	Emitter-Base Voltage	4.0		V
I_C	Collector Current	500		mA
P_{tot}	Power Dissipation above 25°C	250		mW
R_{θJA}	Thermal Resistance from Junction to Ambient	560		°C /W
T_J	Junction Temperature	150		°C
T_{STG}	Storage Temperature Range	-55 to +150		°C

SMD General Purpose Transistor (NPN)

MMBTA05/MMBTA06

Electrical Characteristics ($T_{Ambient}=25^{\circ}C$ unless noted otherwise)

Symbol	Description	MMBTA05		MMBTA06		Unit	Conditions
		Min.	Max.	Min.	Max.		
h_{FE}	D.C. Current Gain	100	-	100	-		$V_{CE}=1V, I_C=10mA$
		100	-	100	-		$V_{CE}=1V, I_C=100mA$
V_{(BR)CEO}	Collector-Emitter Breakdown Voltage	60	-	80	-	V	$I_C=1mA, I_B=0$
V_{(BR)EBO}	Emitter-Base Breakdown Voltage	4.0	-	4.0	-	V	$I_E=100\mu A, I_C=0$
V_{CE(sat)}	Collector-Emitter Saturation Voltage	-	0.25	-	0.25	V	$I_C=100mA, I_B=10mA$
V_{BE(on)}	Base-Emitter On Voltage	-	1.2	-	1.2	V	$I_C=100mA, V_{CE}=1.0V$
I_{CEO}	Collector-Emitter Cut-off Current	-	0.1	-	0.1	μA	$V_{CE}=60V, I_B=0$
I_{CBO}	Collector-Base Cut-off Current	-	0.1	-	0.1	μA	
		$V_{CB}=60V, I_E=0$		$V_{CB}=80V, I_E=0$			
f_T	Current Gain-Bandwidth Product	100	-	100	-	MHz	$V_{CE}=2V, I_C=10mA, f=100MHz$

SMD General Purpose Transistor (NPN)

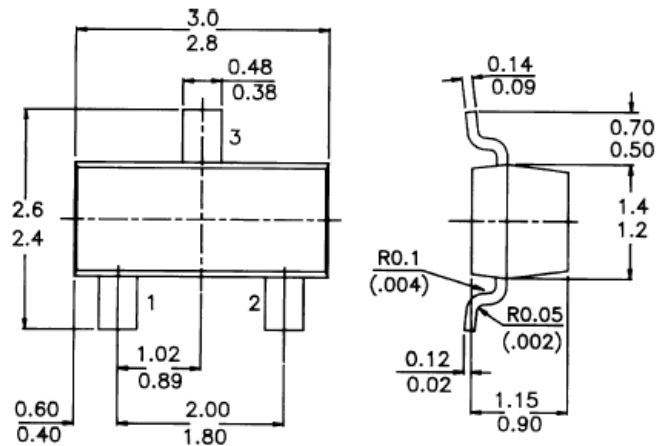
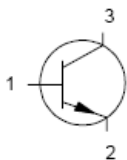
MMBTA05/MMBTA06

Dimensions in mm

SOT-23

Pin configuration

- 1 = BASE
- 2 = EMITTER
- 3 = COLLECTOR



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