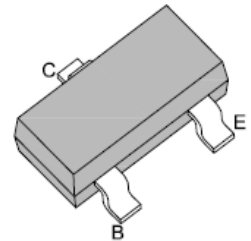


SMD General Purpose Transistor (NPN)

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

Symbol	Description	MMBTA05	MMBTA06	Unit
	Marking Code	1H	1G	
V_{CBO}	Collector-Base Voltage	60	80	V
V_{CEO}	Collector-Emitter Voltage	60	80	V
V_{EB0}	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.		
hFE	D.C. Current Gain	100	-	100	-		VCE=1V, IC=10mA
		100	-	100	-		VCE=1V, IC=100mA
V(BR)CEO	Collector-Emitter Breakdown Voltage	60	-	80	-	V	IC=1mA, IB=0
V(BR)EBO	Emitter-Base Breakdown Voltage	4.0	-	4.0	-	V	IE=100μA, IC=0
VCE(sat)	Collector-Emitter Saturation Voltage	-	0.25	-	0.25	V	IC=100mA, IB=10mA
VBE(on)	Base-Emitter On Voltage	-	1.2	-	1.2	V	IC=100mA, VCE=1.0V
ICEO	Collector-Emitter Cut-off Current	-	0.1	-	0.1	μA	VCE=60V, IB=0
ICBO	Collector-Base Cut-off Current	-	0.1	-	0.1	μA	
		VCB=60V, IE=0		VCB=80V, IE=0			
fT	Current Gain-Bandwidth Product	100	-	100	-	MHz	VCE=2V, IC=10mA, f=100MHz

SMD General Purpose Transistor (NPN)

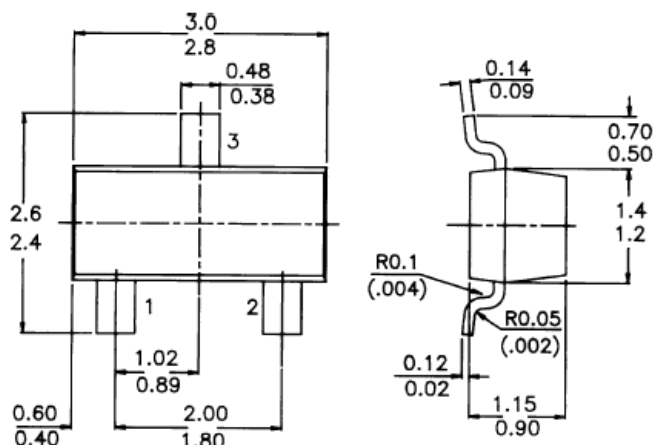
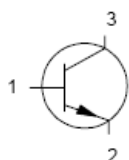
MMBTA05/MMBTA06

Dimensions in mm

SOT-23

Pin configuration

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



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Rev. A/AH 2008-01-10