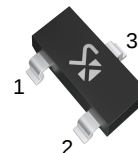


NPN Silicon Epitaxial Planar Transistor

Features

- For switching and AF amplifier applications.

SOT-23



1. BASE
2. EMITTER
3. COLLECTOR

MARKING: MMBTA05=1H MMBTA06=1GM

MAXIMUM RATINGS ($T_A=25^{\circ}\text{C}$ unless otherwise noted)

Symbol	Parameter	Value	Units
V_{CB0}	Collector-Base Voltage	A05: 60 A06: 80	V
V_{CEO}	Collector-Emitter Voltage	A05: 60 A06: 80	V
V_{EBO}	Emitter-Base Voltage	4	V
I_C	Collector Current -Continuous	500	mA
P_C	Collector Power Dissipation	225	mW
T_j	Junction Temperature	150	$^{\circ}\text{C}$
T_{stg}	Storage Temperature	-55-+150	$^{\circ}\text{C}$

ELECTRICAL CHARACTERISTICS ($T_{amb}=25^{\circ}\text{C}$ unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=100\mu\text{A}, I_E=0$	A05: 60 A06: 80			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=1\text{mA}, I_B=0$	A05: 60 A06: 80			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=100\mu\text{A}, I_C=0$	4			V
Collector cut-off current	I_{CBO}	$V_{CB}=60\text{V}, I_E=0$ $V_{CB}=80\text{V}, I_E=0$			0.1 0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=4\text{V}, I_C=0$			0.1	μA
DC current gain	h_{FE}	$V_{CE}=1\text{V}, I_C=10\text{mA}$ $V_{CE}=1\text{V}, I_C=100\text{mA}$	100 100			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=100\text{mA}, I_B=10\text{mA}$			0.25	V
Collector-emitter saturation voltage	$V_{BE(sat)}$	$I_C=100\text{mA}, I_B=10\text{mA}$			1.2	V
Transition frequency	f_T	$V_{CE}=2\text{V}, I_C=10\text{mA}$	100			MHz

PACKAGE OUTLINE

Plastic surface mounted package; 3 leads

SOT-23

