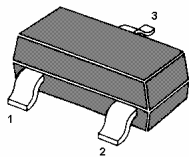


MMBTA06

NPN Silicon Epitaxial Planar Small Signal Transistor

for Switching and amplifier applications

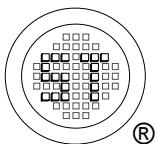


1. Base 2. Emitter 3. Collector

SOT-23 Plastic Package

Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

	Symbol	Value	Unit
Collector Emitter Voltage	V_{CEO}	80	V
Collector Base Voltage	V_{CBO}	80	V
Emitter Base Voltage	V_{EBO}	4	V
Collector Current	I_{C}	500	mA
Power Dissipation	P_{tot}	200	mW
Thermal Resistance Junction to Ambient Air	$R_{\theta\text{JA}}$	450	$^\circ\text{C/W}$
Junction Temperature	T_{j}	150	$^\circ\text{C}$
Storage Temperature Range	T_{s}	-65 to +150	$^\circ\text{C}$



SEMTECH ELECTRONICS LTD.
(Subsidiary of Sino-Tech International Holdings Limited, a company
listed on the Hong Kong Stock Exchange, Stock Code: 724)



ISO/TS 16949 : 2002
Certificate No. 05103



ISO 14001:2004
Certificate No. 7116



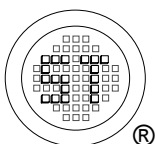
ISO 9001:2000
Certificate No. 0506098

Dated : 20/10/2005

MMBTA06

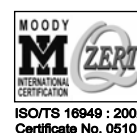
Characteristics at $T_{amb}=25\text{ }^{\circ}\text{C}$

	Symbol	Min.	Max.	Unit
DC Current Gain				
at $I_C=10\text{mA}$, $V_{CE}=1\text{V}$	h_{FE}	100	-	-
at $I_C=100\text{mA}$, $V_{CE}=1\text{V}$	h_{FE}	100	-	-
Collector-Emitter Cutoff Current				
at $V_{CE}=60\text{V}$	I_{CES}	-	100	nA
Collector-Base Cutoff Current				
at $V_{CB}=80\text{V}$	I_{CBO}	-	100	nA
Collector-Base Breakdown Voltage				
at $I_C=100\mu\text{A}$	$V_{(BR)CBO}$	80	-	V
Collector-Emitter Breakdown Voltage				
at $I_C=1\text{mA}$	$V_{(BR)CEO}$	80	-	V
Emitter-Base Breakdown Voltage				
at $I_E=100\mu\text{A}$	$V_{(BR)EBO}$	4	-	V
Collector Saturation Voltage				
at $I_C=100\text{mA}$, $I_B=10\text{mA}$	$V_{CE(sat)}$	-	0.25	V
Base-Emitter On Voltage				
at $I_C=100\text{mA}$, $V_{CE}=1\text{V}$	$V_{BE(on)}$	-	1.2	V
Gain-Bandwidth Product				
at $I_C=10\text{mA}$, $V_{CE}=2\text{V}$, $f=100\text{MHz}$	f_T	100	-	MHz



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