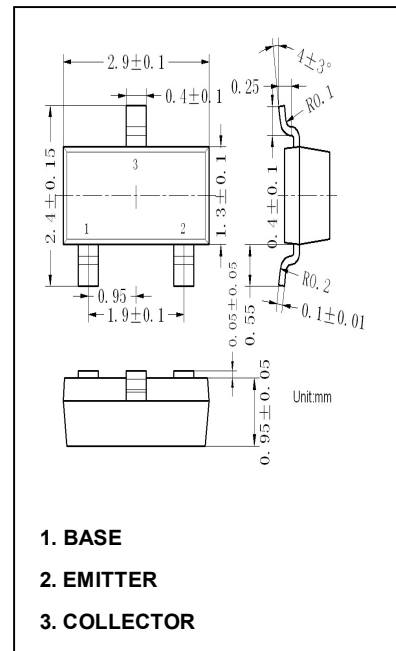


**MMBTA06** TRANSISTOR (NPN)**FEATURES**

- For Switching and Amplifier Applications
- Complementary Type PNP Transistor MMBTA56

MARKING: 1GM**MAXIMUM RATINGS ($T_a=25^{\circ}\text{C}$ unless otherwise noted)**

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	80	V
V_{CEO}	Collector-Emitter Voltage	80	V
V_{EBO}	Emitter-Base Voltage	4	V
I_{C}	Collector Current	500	mA
P_{C}	Collector Power Dissipation	300	mW
$R_{\theta\text{JA}}$	Thermal Resistance From Junction To Ambient	416	$^{\circ}\text{C/W}$
T_{J}	Junction Temperature	150	$^{\circ}\text{C}$
T_{stg}	Storage Temperature	-55~+150	$^{\circ}\text{C}$

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

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(\text{BR})\text{CBO}}$	$I_{\text{C}}=0.1\text{mA}$, $I_{\text{E}}=0$	80			V
Collector-emitter breakdown voltage	$V_{(\text{BR})\text{CEO}}$	$I_{\text{C}}=1\text{mA}$, $I_{\text{B}}=0$	80			V
Emitter-base breakdown voltage	$V_{(\text{BR})\text{EBO}}$	$I_{\text{E}}=0.1\text{mA}$, $I_{\text{C}}=0$	4			V
Collector cut-off current	I_{CBO}	$V_{\text{CB}}=80\text{V}$, $I_{\text{E}}=0$			0.1	μA
Collector cut-off current	I_{CES}	$V_{\text{CE}}=60\text{V}$, $I_{\text{B}}=0$			0.1	μA
Emitter cut-off current	I_{EBO}	$V_{\text{EB}}=3\text{V}$, $I_{\text{C}}=0$			0.1	μA
DC current gain	$h_{\text{FE}(1)}$	$V_{\text{CE}}=1\text{V}$, $I_{\text{C}}=10\text{mA}$	100		400	
	$h_{\text{FE}(2)}$	$V_{\text{CE}}=1\text{V}$, $I_{\text{C}}=100\text{mA}$	100			
Collector-emitter saturation voltage	$V_{\text{CE(sat)}}$	$I_{\text{C}}=100\text{mA}$, $I_{\text{B}}=10\text{mA}$			0.25	V
Base-emitter saturation voltage	$V_{\text{BE(sat)}}$	$I_{\text{C}}=100\text{mA}$, $I_{\text{B}}=10\text{mA}$			1.2	V
Transition frequency	f_{T}	$V_{\text{CE}}=2\text{V}$, $I_{\text{C}}=10\text{mA}$, $f=100\text{MHz}$	100			MHz

Typical Characteristics

