

MMBTA06**NPN EPITAXIAL SILICON TRANSISTOR****DRIVER TRANSISTOR****ABSOLUTE MAXIMUM RATINGS ($T_a = 25^\circ\text{C}$)**

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	V_{CB0}	80	V
Collector-Emitter Voltage	V_{CE0}	80	V
Emitter-Base Voltage	V_{EB0}	4	V
Collector Current	I_C	500	mA
Collector Dissipation	P_C	350	mW
Storage Temperature	T_{stg}	150	$^\circ\text{C}$
Thermal Resistance Junction to Ambient	$R_{th(j-a)}$	357	$^\circ\text{C/W}$

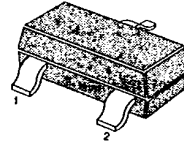
• Refer to MPSA05 for graphs

ELECTRICAL CHARACTERISTICS ($T_a = 25^\circ\text{C}$)

Characteristic	Symbol	Test Condition	Min	Max	Unit
*Collector-Emitter Breakdown Voltage	BV_{CE0}	$I_C = 1\text{mA}, I_B = 0$	80		V
Emitter-Base Breakdown Voltage	BV_{EB0}	$I_E = 100\mu\text{A}, I_C = 0$	4		V
Collector Cutoff Current	I_{CB0}	$V_{CB} = 80\text{V}, I_E = 0$		0.1	μA
Collector Cutoff Current	I_{CE0}	$V_{CE} = 60\text{V}, I_B = 0$		0.1	μA
DC Current Gain	h_{FE}	$V_{CE} = 1\text{V}, I_C = 10\text{mA}$	50		
		$V_{CE} = 1\text{V}, I_C = 100\text{mA}$	50		
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = 100\text{mA}, I_B = 10\text{mA}$		0.25	V
Base-Emitter On Voltage	$V_{BE(on)}$	$V_{CE} = 1\text{V}, I_C = 100\text{mA}$		1.2	V
Current Gain-Bandwidth Product	f_T	$V_{CE} = 2\text{V}, I_C = 10\text{mA}, f = 100\text{MHz}$	100		MHz

* Pulse Test: $PW \leq 300\mu\text{s}$, Duty Cycle $\leq 2\%$

SOT-23



1. Base 2. Emitter 3. Collector

Marking

