

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

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	$V_{CBO}$	80	V
Collector-Emitter Voltage	$V_{CEO}$	80	V
Emitter-Base Voltage	$V_{EBO}$	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	$^\circ\text{C/W}$

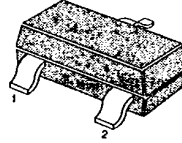
- Refer to MPSA05 for graphs

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

Characteristic	Symbol	Test Condition	Min	Max	Unit
* Collector-Emitter Breakdown Voltage	$BV_{CEO}$	$I_C=1\text{mA}, I_B=0$	80		V
Emitter-Base Breakdown Voltage	$BV_{EBO}$	$I_E=100\mu\text{A}, I_C=0$	4		V
Collector Cutoff Current	$I_{CBO}$	$V_{CB}=80\text{V}, I_E=0$		0.1	$\mu\text{A}$
Collector Cutoff Current	$I_{CEO}$	$V_{CE}=60\text{V}, I_B=0$		0.1	$\mu\text{A}$
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

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Marking

