

MMBTA05**NPN EPITAXIAL SILICON TRANSISTOR****DRIVER TRANSISTOR****ABSOLUTE MAXIMUM RATINGS ($T_a=25^\circ\text{C}$)**

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	V_{CB0}	60	V
Collector-Emitter Voltage	V_{CE0}	60	V
Emitter-Base Voltage	V_{EB0}	4	V
Collector Current (max)	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	$^\circ\text{C/W}$

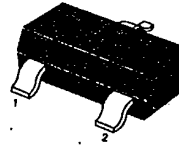
- Refer to MPSA05 for graphs

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

Characteristic	Symbol	Test Condition	Min	Max	Unit
* Collector-Emitter Breakdown Voltage	BV_{CE0}	$I_C=1\text{mA}, I_B=0$	60		V
Emitter-Base Breakdown Voltage	BV_{EB0}	$I_E=100\mu\text{A}, I_C=0$	4		V
Collector Cutoff Current	I_{CB0}	$V_{CB}=60\text{V}, I_E=0$		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

