

# SOT23 NPN SILICON PLANAR MEDIUM POWER TRANSISTORS

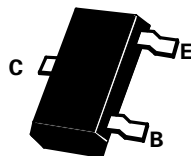
## FMMTA05 FMMTA06

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### FEATURES

- \* 80 Volt  $V_{CE0}$
- \* Gain of 50 at  $I_C=100\text{mA}$

PARTMARKING DETAIL – FMMTA05 – 1H  
FMMTA06 – 1G  
FMMTA05R – NA  
FMMTA06R – MA



SOT23

### ABSOLUTE MAXIMUM RATINGS.

PARAMETER	SYMBOL	FMMTA05	FMMTA06	UNIT
Collector-Base Voltage	$V_{CBO}$	60	80	V
Collector-Emitter Voltage	$V_{CEO}$	60	80	V
Emitter-Base Voltage	$V_{EBO}$	4		V
Continuous Collector Current	$I_C$	500		mA
Power Dissipation at $T_{amb}=25^\circ\text{C}$	$P_{tot}$	330		mW
Operating and Storage Temperature Range	$T_j; T_{stg}$	-55 to +150		$^\circ\text{C}$

### ELECTRICAL CHARACTERISTICS (at $T_{amb} = 25^\circ\text{C}$ ).

PARAMETER	SYMBOL	FMMTA05		FMMTA06		UNIT	CONDITIONS.
		MIN.	MAX.	MIN.	MAX.		
Collector-Emitter Breakdown Voltage	$V_{(BR)EBO}$	60		80		V	$I_C=1\text{mA}^*$
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	4		4		V	$I_E=100\mu\text{A}$
Collector Cut-Off Current	$I_{CES}$		0.1		0.1	$\mu\text{A}$	$V_{CES}=60\text{V}$
Collector Cut-Off Current	$I_{CBO}$		0.1		0.1	$\mu\text{A}$ $\mu\text{A}$	$V_{CB}=60\text{V}$ $V_{CB}=80\text{V}$
Static Forward Current Transfer Ratio	$h_{FE}$	50 50		50 50			$I_C=10\text{mA}, V_{CE}=1\text{V}^*$ $I_C=100\text{mA}, V_{CE}=1\text{V}^*$
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$		0.25		0.25	V	$I_C=100\text{mA}, I_B=10\text{mA}^*$
Base-Emitter Turn-On Voltage	$V_{BE(on)}$		1.2		1.2	V	$I_C=100\text{mA}, V_{CE}=1\text{V}^*$
Transition Frequency	$f_T$	100		100		MHz	$I_C=10\text{mA}, V_{CE}=2\text{V}$ $f=100\text{MHz}$

\*Measured under pulsed conditions. Pulse width=300 $\mu\text{s}$ . Duty cycle  $\leq 2\%$   
Spice parameter data is available upon request for this device