

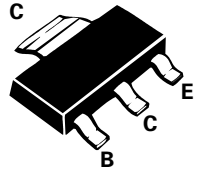
# SOT223 NPN SILICON PLANAR DARLINGTON TRANSISTOR

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## FZTA14

PARTMARKING DETAIL:- DEVICE TYPE IN FULL

COMPLEMENTARY TYPE :- FZTA64



SOT223

### ABSOLUTE MAXIMUM RATINGS.

PARAMETER	SYMBOL	VALUE	UNIT
Collector-Emitter Voltage	$V_{CES}$	30	V
Collector-Base Voltage	$V_{CBO}$	30	V
Collector-Emitter Voltage	$V_{CEO}$	30	V
Emitter-Base Voltage	$V_{EBO}$	10	V
Continuous Collector Current	$I_C$	1	A
Power Dissipation at $T_{amb}=25^{\circ}C$	$P_{tot}$	2	W
Operating and Storage Temperature Range	$T_j; T_{stg}$	-55 to +150	$^{\circ}C$

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

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	CONDITIONS.
Collector-Base Breakdown Voltage	$V_{(BR)CES}$	30			V	$I_C=100\mu A, V_{BE}=0$
Collector Cut-Off Current	$I_{CBO}$			100	nA	$V_{CB}=30V, I_E=0$
Emitter Cut-Off Current	$I_{EBO}$			100	nA	$V_{EB}=10V, I_C=0$
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$			1.5 1.6	V V	$I_C=100mA, I_B=0.1mA^*$ $I_C=1A, I_B=1mA^*$
Base-Emitter Turn-On Voltage	$V_{BE(on)}$			2.0	V	$I_C=100mA, V_{CE}=5V^*$
Base-Emitter Saturation Voltage	$V_{BE(sat)}$			2.0 2.2	V V	$I_C=100mA, I_B=0.1mA$ $I_C=1A, I_B=1mA$
Static Forward Current Transfer Ratio	$h_{FE}$	10K 20K 5K				$I_C=10mA, V_{CE}=5V^*$ $I_C=100mA, V_{CE}=5V^*$ $I_C=1A, V_{CE}=5V^*$
Transition Frequency	$f_T$		170		MHz	$I_C=50mA, V_{CE}=5V^*$ $f=20MHz$

\*Measured under pulsed conditions. Pulse Width=300 $\mu$ s. Duty cycle  $\leq 2\%$

Spice parameter data is available upon request for this device

For typical characteristics graphs see FMMT38C datasheet.