

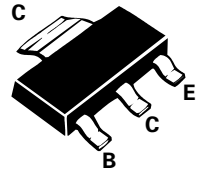
SOT223 NPN SILICON PLANAR DARLINGTON TRANSISTOR

ISSUE 3 – JANUARY 1996

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 μs . Duty cycle $\leq 2\%$

Spice parameter data is available upon request for this device

For typical characteristics graphs see FMMT38C datasheet.