



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



## Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: [info@chipsmall.com](mailto:info@chipsmall.com) Web: [www.chipsmall.com](http://www.chipsmall.com)

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



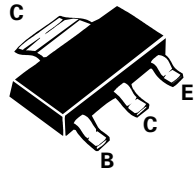
# SOT223 NPN SILICON PLANAR DARLINGTON TRANSISTOR

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 $\mu$ s. Duty cycle  $\leq 2\%$

Spice parameter data is available upon request for this device

For typical characteristics graphs see FMMT38C datasheet.