

# SOT223 PNP SILICON PLANAR DARLINGTON TRANSISTORS

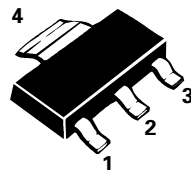
ISSUE 5- MARCH 2001



## FZTA64

PARTMARKING DETAILS: FZTA64

COMPLIMENTARY TYPE: FZTA14



SOT223

### ABSOLUTE MAXIMUM RATINGS.

PARAMETER	SYMBOL	VALUE	UNIT
Collector-Base Voltage	$V_{CBO}$	-30	V
Collector-Emitter Voltage	$V_{CEO}$	-30	V
Emitter-Base Voltage	$V_{EBO}$	-10	V
Peak Pulse Current	$I_{CM}$	-800	mA
Continuous Collector Current	$I_C$	-500	mA
Peak Base Current	$I_{BM}$	-200	mA
Power Dissipation at $T_{amb}=25^{\circ}C$	$P_{tot}$	2	W
Operating and Storage Temperature Range	$T_j; T_{stg}$	-55 to +150	$^{\circ}C$

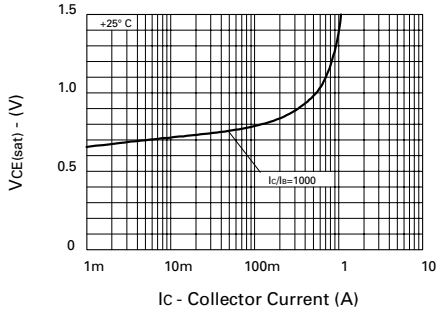
### ELECTRICAL CHARACTERISTICS (at $T_{amb} = 25^{\circ}C$ unless otherwise stated).

PARAMETER	SYMBOL	MIN.	MAX.	UNIT	CONDITIONS.
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	-30		V	$I_C = -10\mu A, I_E = 0$
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	-30		V	$I_C = -10mA, I_B = 0^*$
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	-10		V	$I_E = -10\mu A, I_C = 0$
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	V	$I_C = -100mA, I_B = -0.1mA^*$
Base-Emitter Saturation Voltage	$V_{BE(sat)}$		-2.0	V	$I_C = -100mA, I_B = -0.1mA^*$
Static Forward Current Transfer Ratio	$h_{FE}$	10K 20K			$I_C = -10mA, V_{CE} = -5V$ $I_C = -100mA, V_{CE} = -5V^*$
Transition Frequency	$f_T$	125		MHz	$I_C = -50mA, V_{CE} = -5V$ $f = 20MHz$

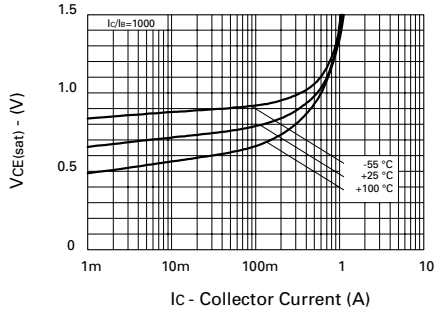
\*Measured under pulsed conditions. Pulse width=300 $\mu s$ . Duty cycle  $\leq 2\%$

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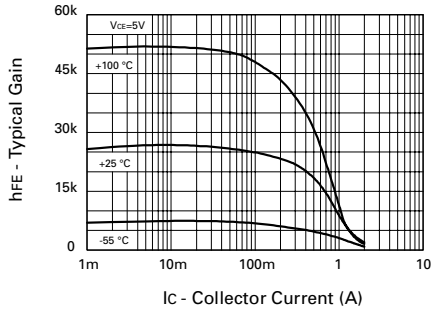
## TYPICAL CHARACTERISTICS



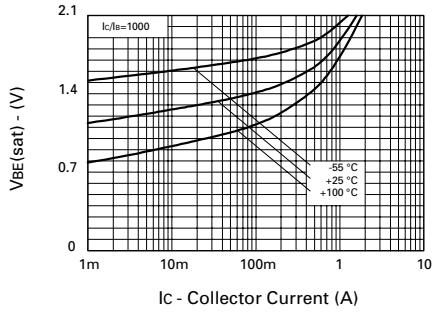
**$V_{CE(sat)}$  v  $I_C$**



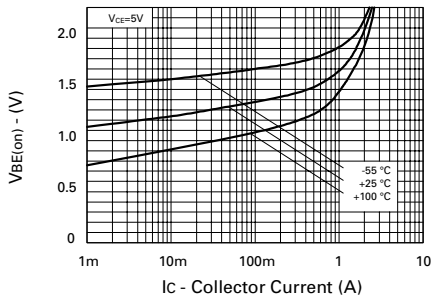
**$V_{CE(sat)}$  v  $I_C$**



**$h_{FE}$  v  $I_C$**



**$V_{BE(sat)}$  v  $I_C$**



**$V_{BE(on)}$  v  $I_C$**