

SOT223 NPN SILICON PLANAR MEDIUM POWER DARLINGTON TRANSISTORS

ISSUE 3 - OCTOBER 1995

FEATURES

- * Guaranteed h_{FE} Specified up to 2A
- * Fast Switching

PARTMARKING DETAIL - DEVICE TYPE IN FULL
 COMPLEMENTARY TYPES - FZT704 - FZT705
 FZT605 - FZT705

ABSOLUTE MAXIMUM RATINGS.

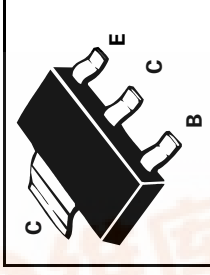
PARAMETER	SYMBOL	FZT604	FZT605	UNIT
Collector-Base Voltage	V_{CBO}	120	140	V
Collector-Emitter Voltage	V_{CEO}	100	120	V
Emitter-Base Voltage	V_{EBO}	10	10	V
Peak Pulse Current	I_{CM}	4	4	A
Continuous Collector Current	I_C	1.5	1.5	A
Power Dissipation	P_{tot}	2	2	W
Operating and Storage Temperature Range	$T_j; T_{stg}$	-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	$V_{(BR)CBO}$	120		V	$I_C=100\mu A$
		140		V	$I_C=100\mu A$
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	100		V	$I_C=10mA^*$
		120		V	$I_C=10mA^*$
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	10		V	$I_E=100\mu A$
Collector Cut-Off Current	I_{CBO}	0.01		μA	$V_{CB}=100V$
		10		μA	$V_{CB}=100V, T_{amb}=100^{\circ}C$
Emitter Cut-Off Current	I_{EBO}	0.01		μA	$V_{CB}=120V$
		10		μA	$V_{CB}=120V, T_{amb}=100^{\circ}C$
Collector-Emitter Cut-Off Current	I_{CES}	0.1		μA	$V_{EB}=8V$
		10		μA	$V_{CES}=100V$
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	1.0,		V	$I_C=250mA, I_B=0.25mA^*$
		1.5		V	$I_C=1A, I_B=1mA^*$
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	1.8		V	$I_C=1A, I_B=1mA^*$
Base-Emitter Turn-On Voltage	$V_{BE(on)}$	1.7		V	$I_C=1A, V_{CE}=5V^*$
Static Forward Current Transfer Ratio	h_{FE}	2K			$I_C=50mA, V_{CE}=5V$
		5K			$I_C=500mA, V_{CE}=5V^*$
		2K	100K		$I_C=1A, V_{CE}=5V^*$
		0.5K			$I_C=2A, V_{CE}=5V^*$

查询FZT604供应商

捷多邦, 专业PCB打样工厂, 24小时加急出货



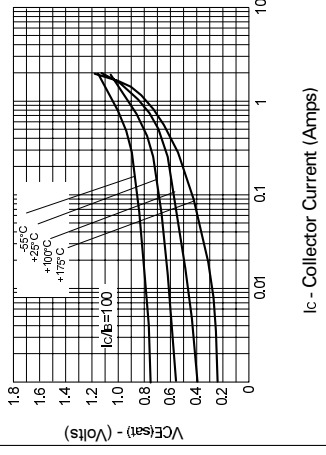
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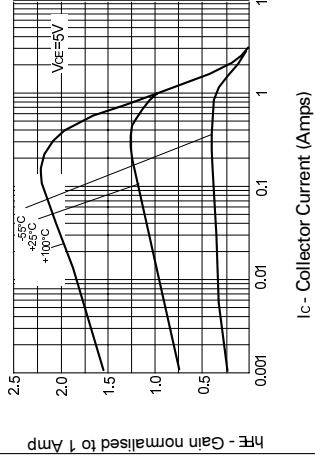
TYPICAL CHARACTERISTICS

PARAMETER	SYMBOL	MIN.	MAX.	UNIT	CONDITIONS
Transition Frequency	f_T	150		MHz	$I_C=100\text{mA}$, $V_{CE}=10\text{V}$ $f=20\text{MHz}$
Input capacitance	C_{ibo}	90 Typical		pF	$V_{EB}=500\text{mV}$, $f=1\text{MHz}$
Output Capacitance	C_{obo}	15 Typical		pF	$V_{CB}=10\text{V}$, $f=1\text{MHz}$
Switching Times	t_{on}	0.5 Typical		pF	$I_C=500\text{mA}$, $V_{CE}=10\text{V}$ $I_{B1} = I_{B2} = 0.5\text{mA}$
	t_{off}	1.6 Typical		pF	

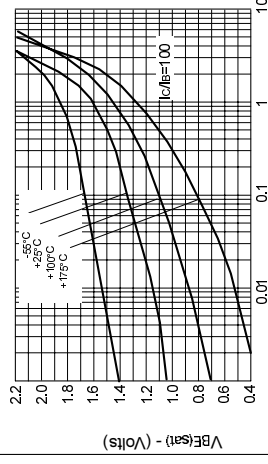
Measured under pulsed conditions. Pulse width = 300 μ s. Duty cycle 2%
Spice parameter data is available upon request for these devices.



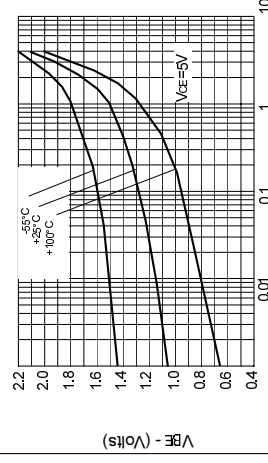
$V_{CE(sat)}$ v I_C



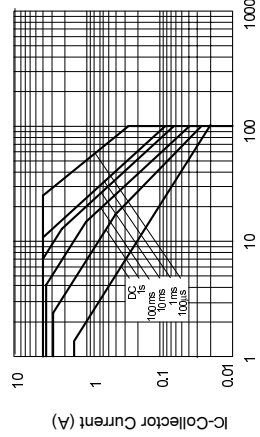
hFE v I_C



$V_{BE(sat)}$ v I_C

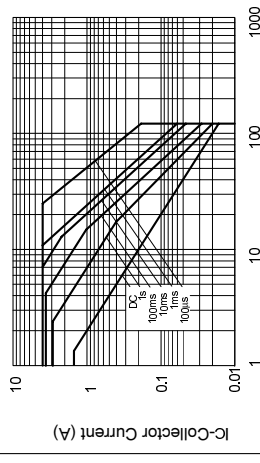


$V_{BE(on)}$ v I_C



V_{CE} - Collector Emitter Voltage (V)

FZT604 Safe Operating Area



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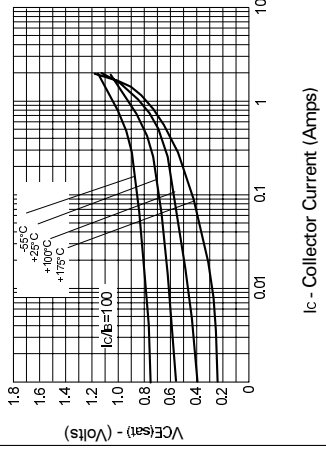
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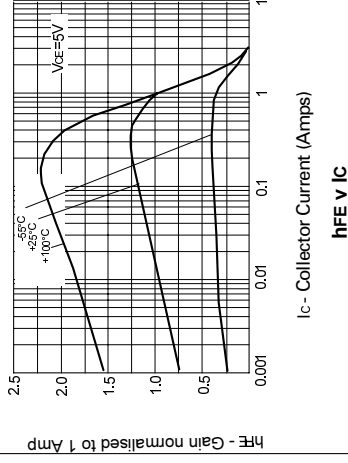
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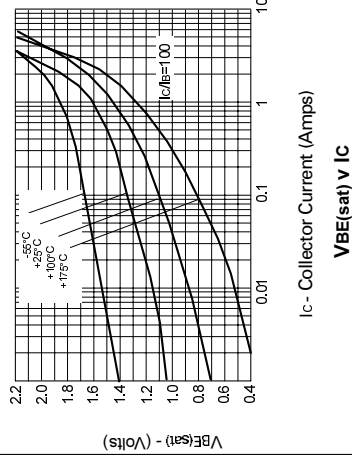
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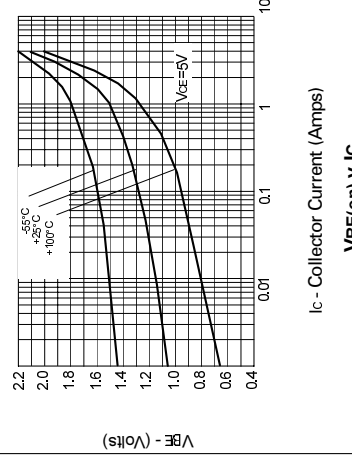
$V_{CE(sat)}$ v I_C



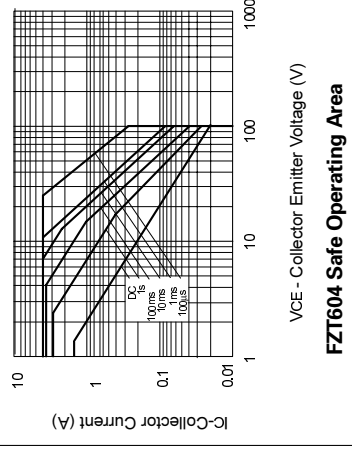
hFE v I_C



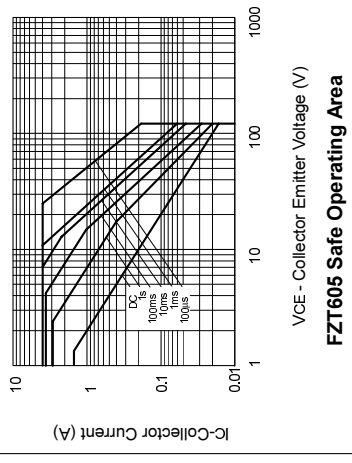
$V_{BE(sat)}$ v I_C



$V_{BE(on)}$ v I_C



I_C -Collector Current (A)
 V_{CE} -Collector Emitter Voltage (V)
FZT604 Safe Operating Area



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 V_{CE} -Collector Emitter Voltage (V)
FZT605 Safe Operating Area