

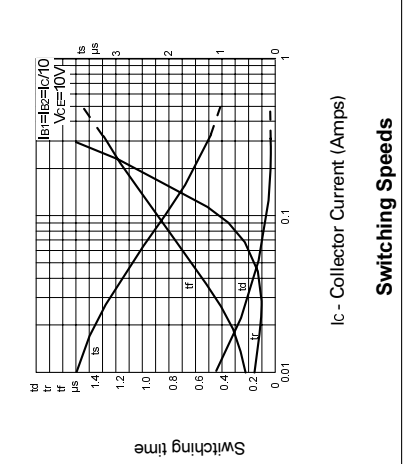
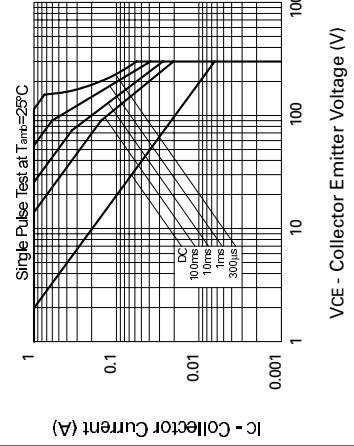
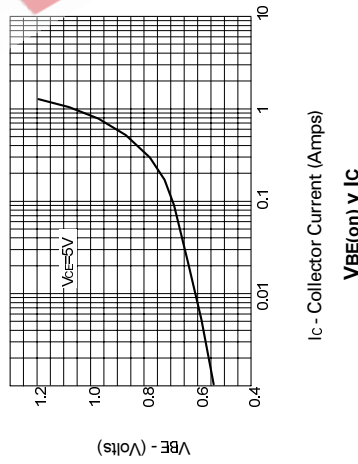
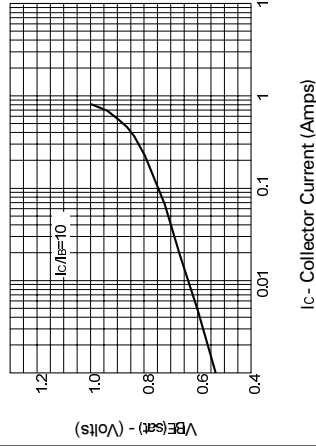
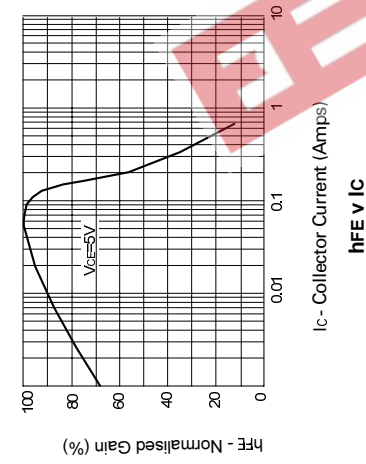
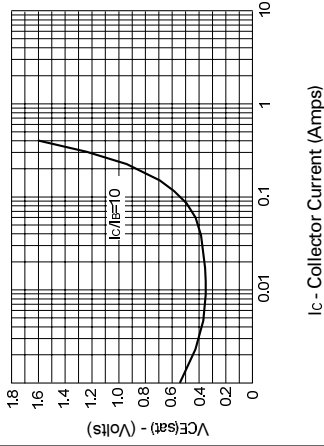
FZT657

**SOT223 NPN SILICON PLANAR
MEDIUM POWER TRANSISTOR**

ISSUE 3 - FEBRUARY 1995

FZT657

TYPICAL CHARACTERISTICS

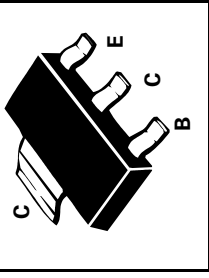


FEATURES

- * Low saturation voltage

COMPLEMENTARY TYPE - FZT757

PARTMARKING DETAIL - FZT657



ABSOLUTE MAXIMUM RATINGS.

PARAMETER	SYMBOL	VALUE	UNIT
Collector-Base Voltage	V_{CBO}	300	V
Collector-Emitter Voltage	V_{CEO}	300	V
Emitter-Base Voltage	V_{EBO}	5	V
Peak Pulse Current	I_{CM}	1	A
Continuous Collector Current	I_C	0.5	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 $T_{amb} = 25^{\circ}C$ unless otherwise stated).

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	CONDITIONS.
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	300			V	$I_C=100\mu A$
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	300			V	$I_C=10mA, I_B=10mA^*$
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	5			V	$I_E=100\mu A$
Collector Cut-Off Current	I_{CBO}			0.1	μA	$V_{CE}=200V$
Emitter Cut-Off Current	I_{EBO}			0.1	μA	$V_{EB}=3V$
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$			0.5	V	$I_C=100mA, I_B=10mA^*$
Base-Emitter Saturation Voltage	$V_{BE(sat)}$			1.0	V	$I_C=100mA, I_B=10mA^*$
Base-Emitter Turn-On Voltage	$V_{BE(on)}$			1.0	V	$I_C=100mA, V_{CE}=5V^*$
Static Forward Current Transfer Ratio	h_{FE}	40	50			$I_C=10mA, V_{CE}=5V^*$
Transition Frequency	f_T	30			MHz	$I_C=10mA, V_{CE}=20V, f_c=20MHz$
Output Capacitance	C_{obbo}			20	pF	$V_{CB}=20V, f=1MHz$

*Measured under pulsed conditions. Pulse Width=300 μs . Duty cycle $\leq 2\%$
Spice parameter data is available upon request for this device

FZT657

**SOT223 NPN SILICON PLANAR
MEDIUM POWER TRANSISTOR**

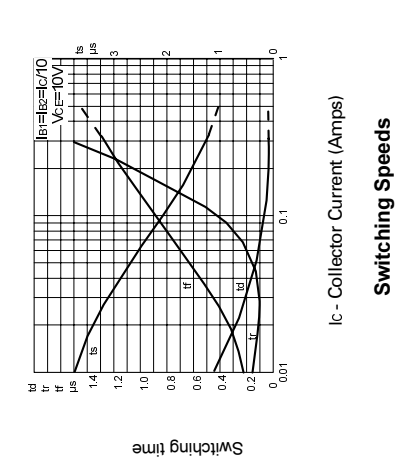
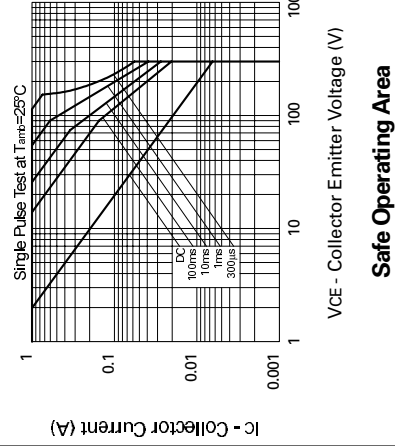
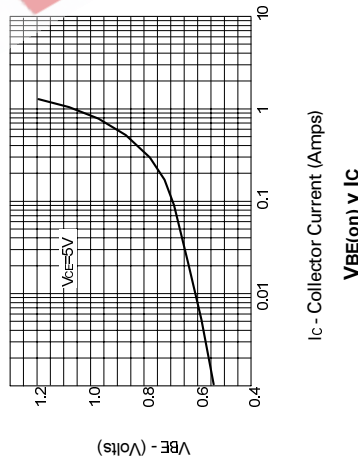
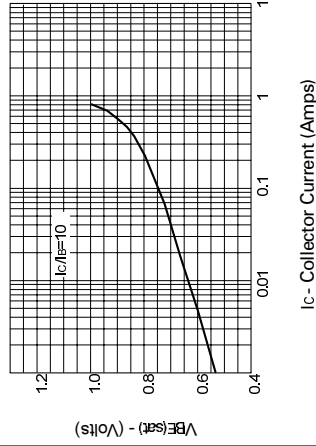
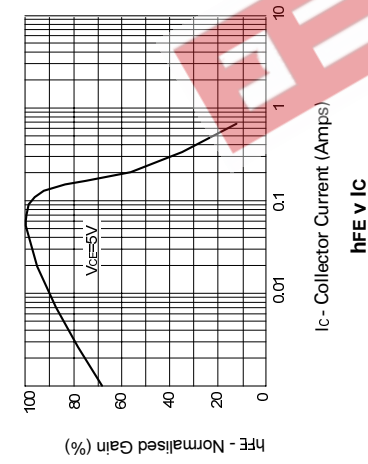
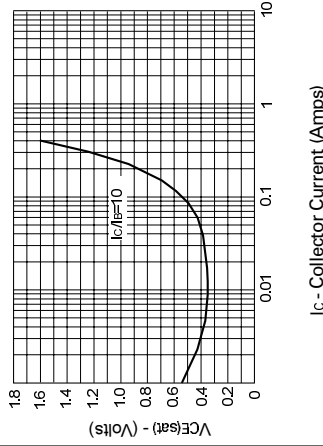
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TYPICAL CHARACTERISTICS



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Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	5			V	$I_E=100\mu A$
Collector Cut-Off Current	I_{CBO}			0.1	μA	$V_{CE}=200V$
Emitter Cut-Off Current	I_{EBO}			0.1	μA	$V_{EB}=3V$
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$			0.5	V	$I_C=100mA, I_B=10mA^*$
Base-Emitter Saturation Voltage	$V_{BE(sat)}$			1.0	V	$I_C=100mA, I_B=10mA^*$
Base-Emitter Turn-On Voltage	$V_{BE(on)}$			1.0	V	$I_C=100mA, V_{CE}=5V^*$
Static Forward Current Transfer Ratio	h_{FE}	40	50			$I_C=10mA, V_{CE}=5V^*$
Transition Frequency	f_T	30			MHz	$I_C=10mA, V_{CE}=20V, f_c=20MHz$
Output Capacitance	C_{ob0}			20	pF	$V_{CB}=20V, f=1MHz$

*Measured under pulsed conditions. Pulse Width=300 μs . Duty cycle $\leq 2\%$
Spice parameter data is available upon request for this device