

SOT223 NPN SILICON PLANAR MEDIUM POWER TRANSISTOR

FZT657

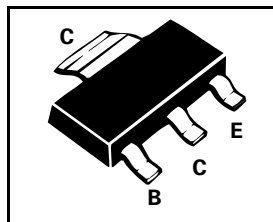
ISSUE 3- FEBRUARY 1995

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	$^{\circ}C$

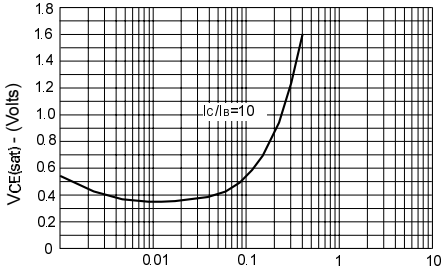
ELECTRICAL CHARACTERISTICS (at $T_{amb} = 25^{\circ}C$ unless otherwise stated).

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	$I_C=10mA^*$
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	5			V	$I_E=100\mu A$
Collector Cut-Off Current	I_{CBO}			0.1	μA	$V_{CB}=200V$
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				$I_C=10mA, V_{CE}=5V^*$ $I_C=100mA, V_{CE}=5V^*$
Transition Frequency	f_T	30			MHz	$I_C=10mA, V_{CE}=20V$ $f=20MHz$
Output Capacitance	C_{obo}			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

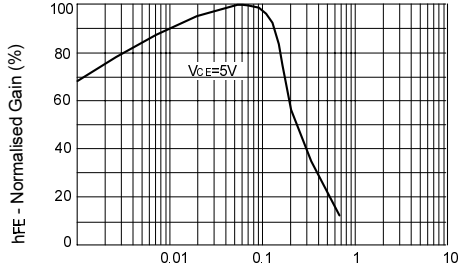
FZT657

TYPICAL CHARACTERISTICS



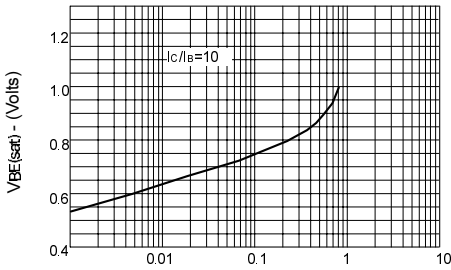
I_C - Collector Current (Amps)

$V_{CE(sat)}$ v I_C



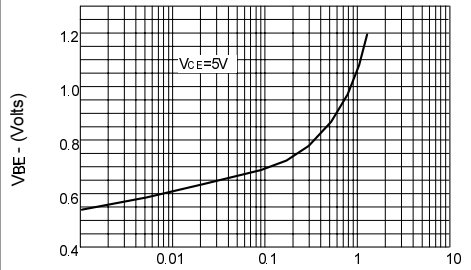
I_C - Collector Current (Amps)

h_{FE} v I_C



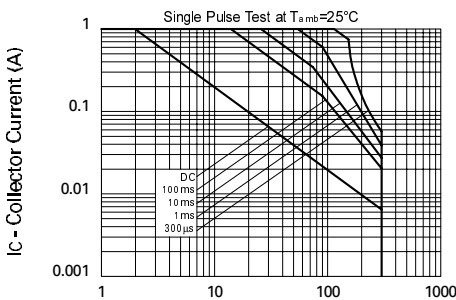
I_C - Collector Current (Amps)

$V_{BE(sat)}$ v I_C



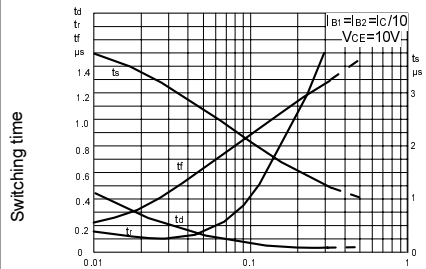
I_C - Collector Current (Amps)

$V_{BE(on)}$ v I_C



V_{CE} - Collector Emitter Voltage (V)

Safe Operating Area



I_C - Collector Current (Amps)

Switching Speeds



LittleDiode supplies new, hard to find or obsolete electronic components and semiconductors all over the world.

With over two million different components listed you are sure to find the part you need.

Feel free to visit us today at our online store:

LittleDiode.com

Looking forward to providing you with the best possible service.