

SOT223 NPN SILICON PLANAR MEDIUM POWER TRANSISTOR

FZT755

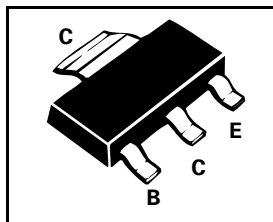
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FEATURES

- * 25 Volt V_{CE0}
- * Low saturation voltage
- * Excellent h_{FE} specified up to 6A (pulsed).

COMPLEMENTARY TYPE – FZT655

PARTMARKING DETAIL – FZT755



ABSOLUTE MAXIMUM RATINGS.

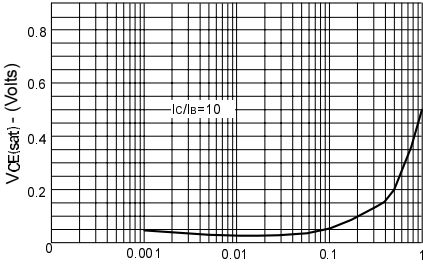
PARAMETER	SYMBOL	VALUE	UNIT
Collector-Base Voltage	V_{CBO}	-150	V
Collector-Emitter Voltage	V_{CEO}	-150	V
Emitter-Base Voltage	V_{EBO}	-5	V
Peak Pulse Current	I_{CM}	-2	A
Continuous Collector Current	I_C	-1	A
Power Dissipation at $T_{amb}=25^{\circ}C$	P_{tot}	2	W
Operating and Storage Temperature Range	$T_j; T_{stg}$	-55 to +150	$^{\circ}C$

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

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	CONDITIONS.
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	-150			V	$I_C = -100\mu A$
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	-150			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	$V_{CB} = -125V$
Emitter Cut-Off Current	I_{EBO}			-0.1	μA	$V_{EB} = -3V$
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$			-0.5 -0.5	V	$I_C = -500mA, I_B = -50mA^*$ $I_C = -1A, I_B = -200mA^*$
Base-Emitter Saturation Voltage	$V_{BE(sat)}$			-1.1	V	$I_C = -500mA, I_B = -50mA^*$
Base-Emitter Turn-On Voltage	$V_{BE(on)}$			-1.0	V	$I_C = -500mA, V_{CE} = -5V^*$
Static Forward Current Transfer Ratio	h_{FE}	50 50 20		300		$I_C = -10mA, V_{CE} = -5V^*$ $I_C = -500mA, V_{CE} = -5V^*$ $I_C = -1A, V_{CE} = -5V^*$
Transition Frequency	f_T	30			MHz	$I_C = -10mA, V_{CE} = -20V$ $f = 20MHz$
Output Capacitance	C_{obo}			20	pF	$V_{CB} = -10V, f = 1MHz$

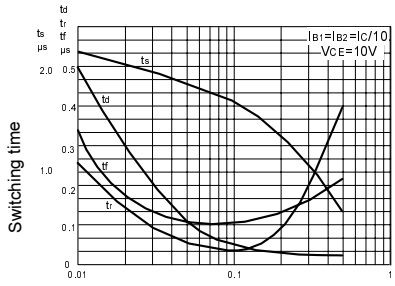
*Measured under pulsed conditions. Pulse Width=300 μs . Duty cycle $\leq 2\%$

TYPICAL CHARACTERISTICS



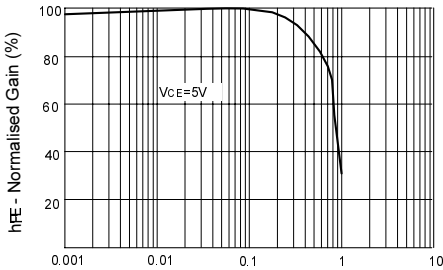
I_C - Collector Current (Amps)

$V_{CE(sat)}$ v I_C



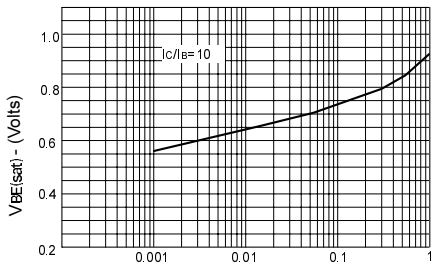
I_C - Collector Current (Amps)

Switching Speeds



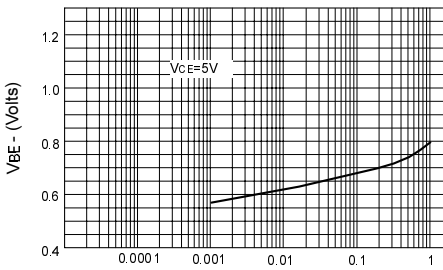
I_C - Collector Current (Amps)

h_{FE} v I_C



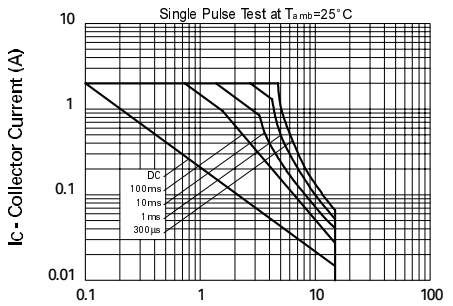
I_C - Collector Current (Amps)

$V_{BE(sat)}$ v I_C



I_C - Collector Current (Amps)

$V_{BE(on)}$ v I_C



V_{CE} - Collector Emitter Voltage (V)

Safe Operating Area