

SOT223 PNP SILICON PLANAR HIGH PERFORMANCE TRANSISTOR

ISSUE 2 – FEBRUARY 1995

FEATURES

- * 60 Volt V_{CEO}
- * 3 Amp continuous current
- * Low saturation voltage

勝特力材料 886-3-5753170
勝特力电子(上海) 86-21-54151736
勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)

FZT751

COMPLEMENTARY TYPE – FZT651

PARTMARKING DETAIL – FZT751

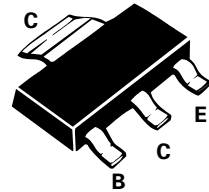
ABSOLUTE MAXIMUM RATINGS.

PARAMETER	SYMBOL	VALUE	UNIT
Collector-Base Voltage	V_{CBO}	-80	V
Collector-Emitter Voltage	V_{CEO}	-60	V
Emitter-Base Voltage	V_{EBO}	-5	V
Peak Pulse Current	I_{CM}	-6	A
Continuous Collector Current	I_C	-3	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	$^{\circ}C$

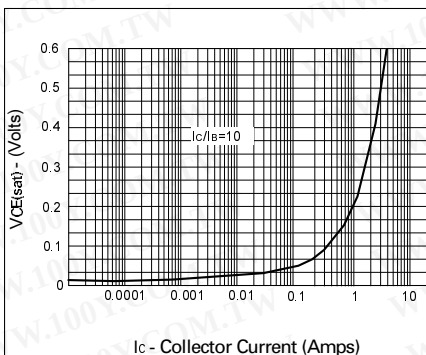
ELECTRICAL CHARACTERISTICS (at $T_{amb} = 25^{\circ}C$ unless otherwise stated).

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	CONDITIONS.
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	-80			V	$I_C = -100\mu A$
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	-60			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 -10	μA	$V_{CB} = -60V$ $V_{CB} = -60V, T_{amb} = 100^{\circ}C$
Emitter Cut-Off Current	I_{EBO}			-0.1	μA	$V_{EB} = -4V$
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$		-0.15 -0.45	0.3 0.6	V	$I_C = -1A, I_B = -100mA^*$ $I_C = -3A, I_B = -300mA^*$
Base-Emitter Saturation Voltage	$V_{BE(sat)}$		-0.9	-1.25	V	$I_C = -1A, I_B = -100mA^*$
Base-Emitter Turn-On Voltage	$V_{BE(on)}$		-0.8	-1.0	V	$I_C = -1A, V_{CE} = -2V^*$
Static Forward Current Transfer Ratio	h_{FE}	70 100 80 40	200 200 170 150	300		$I_C = -50mA, V_{CE} = -2V^*$ $I_C = -500mA, V_{CE} = -2V^*$ $I_C = -1A, V_{CE} = -2V^*$ $I_C = -2A, V_{CE} = -2V^*$
Transition Frequency	f_T	100	140		MHz	$I_C = -100mA, V_{CE} = -5V$ $f = 100MHz$
Switching Times	t_{on}		40		ns	$I_C = -500mA, V_{CC} = -10V$
	t_{off}		450		ns	$I_{B1} = I_{B2} = -50mA$
Output Capacitance	C_{obo}			30	pF	$V_{CB} = -10V, f = 1MHz$

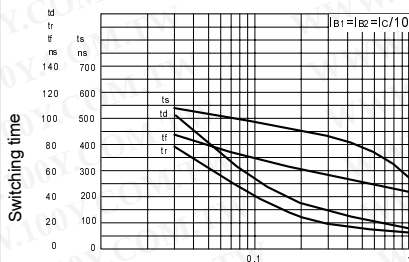
*Measured under pulsed conditions. Pulse width=300 μs . Duty cycle $\leq 2\%$
Spice parameter data is available upon request for this device



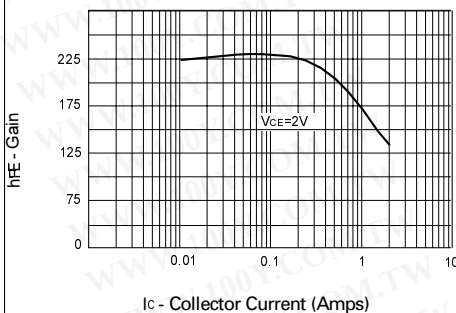
TYPICAL CHARACTERISTICS



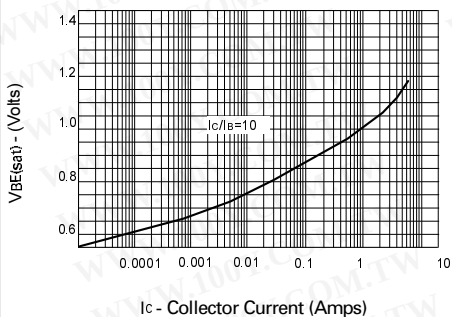
VCE(sat) v IC



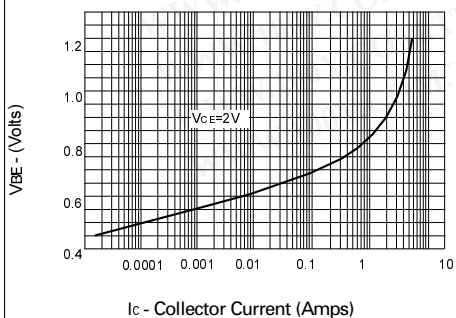
Switching Speeds



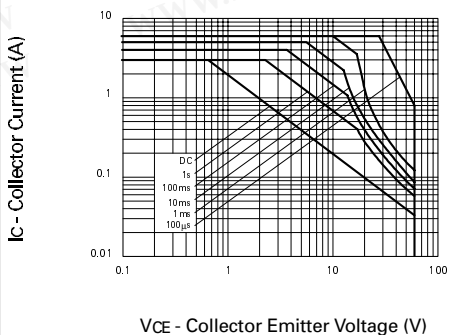
hFE v IC



VBE(sat) v IC



VBE(on) v IC



Safe Operating Area