

SOT23 PNP SILICON PLANAR MEDIUM POWER TRANSISTOR

FMMT555

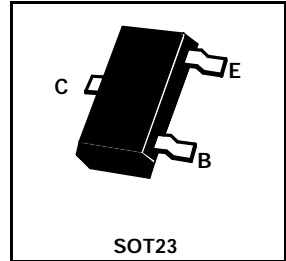
ISSUE 4 – AUGUST 2003

FEATURES

- * 150 Volt V_{CEO}
- * 1 Amp continuous current

COMPLEMENTARY TYPE – FMMT455

PARTMARKING DETAIL – 555



ABSOLUTE MAXIMUM RATINGS.

PARAMETER	SYMBOL	VALUE	UNIT
Collector-Base Voltage	V_{CBO}	-160	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
Base Current	I_B	-200	mA
Power Dissipation at $T_{amb} = 25^\circ\text{C}$	P_{tot}	500	mW
Operating and Storage Temperature Range	T_j, T_{stg}	-55 to +150	$^\circ\text{C}$

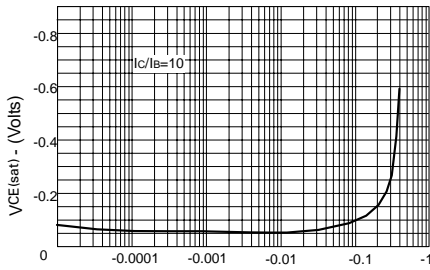
ELECTRICAL CHARACTERISTICS (at $T_{amb} = 25^\circ\text{C}$ unless otherwise stated).

PARAMETER	SYMBOL	MIN.	MAX.	UNIT	CONDITIONS.
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	-160		V	$I_C = -10\mu\text{A}$
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	-150		V	$I_C = -10\text{mA}^*$
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	-5		V	$I_E = -10\mu\text{A}$
Collector Cut-Off Current	I_{CBO}		-0.1 -10	μA μA	$V_{CB} = -140\text{V}$ $V_{CB} = -140\text{V}, T_{amb} = 100^\circ\text{C}$
Emitter Cut-Off Current	I_{EBO}		-0.1	μA	$V_{EB} = -4\text{V}$
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$		-0.3	V	$I_C = -100\text{mA}, I_B = -10\text{mA}^*$
Base-Emitter Saturation Voltage	$V_{BE(sat)}$		-1	V	$I_C = -100\text{mA}, I_B = -10\text{mA}^*$
Base-Emitter Turn-on Voltage	$V_{BE(on)}$		-1	V	$I_C = -100\text{mA}, V_{CE} = -10\text{V}^*$
Static Forward Current Transfer Ratio	h_{FE}	50 50	300		$I_C = -10\text{mA}, V_{CE} = -10\text{V}^*$ $I_C = -300\text{mA}, V_{CE} = -10\text{V}^*$
Transition Frequency	f_T	100		MHz	$I_C = -50\text{mA}, V_{CE} = -10\text{V}$ $f = 100\text{MHz}$
Output Capacitance	C_{obo}		10	pF	$V_{CB} = -10\text{V}, f = 1\text{MHz}$

* Measured under pulsed conditions. Pulse width = $300\mu\text{s}$. Duty cycle $> 2\%$
Spice parameter data is available upon request for this device

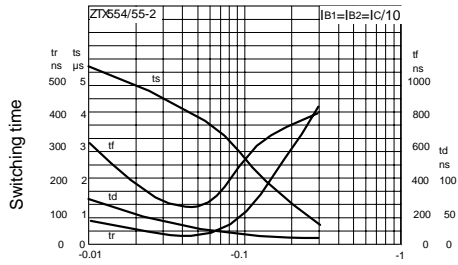


TYPICAL CHARACTERISTICS



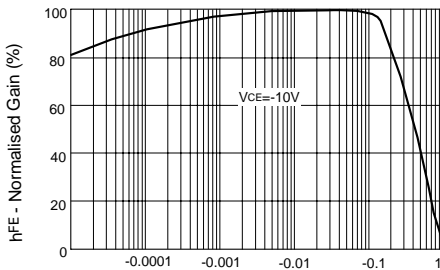
IC - Collector Current (Amps)

VCE(sat) v IC



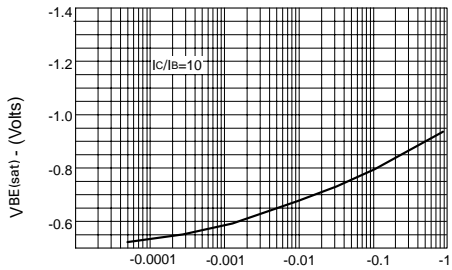
IC - Collector Current (Amps)

Switching Speeds



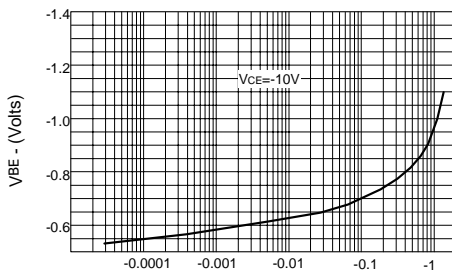
IC - Collector Current (Amps)

hFE v IC



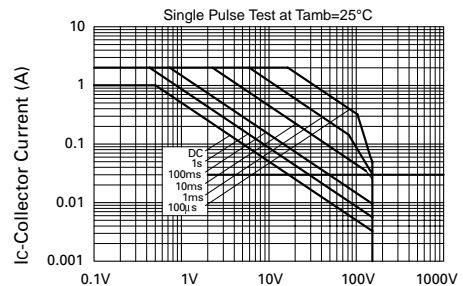
IC - Collector Current (Amps)

VBE(sat) v IC



IC - Collector Current (Amps)

VBE(on) v IC



VCE - Collector Emitter Voltage (V)

Safe Operating Area



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.