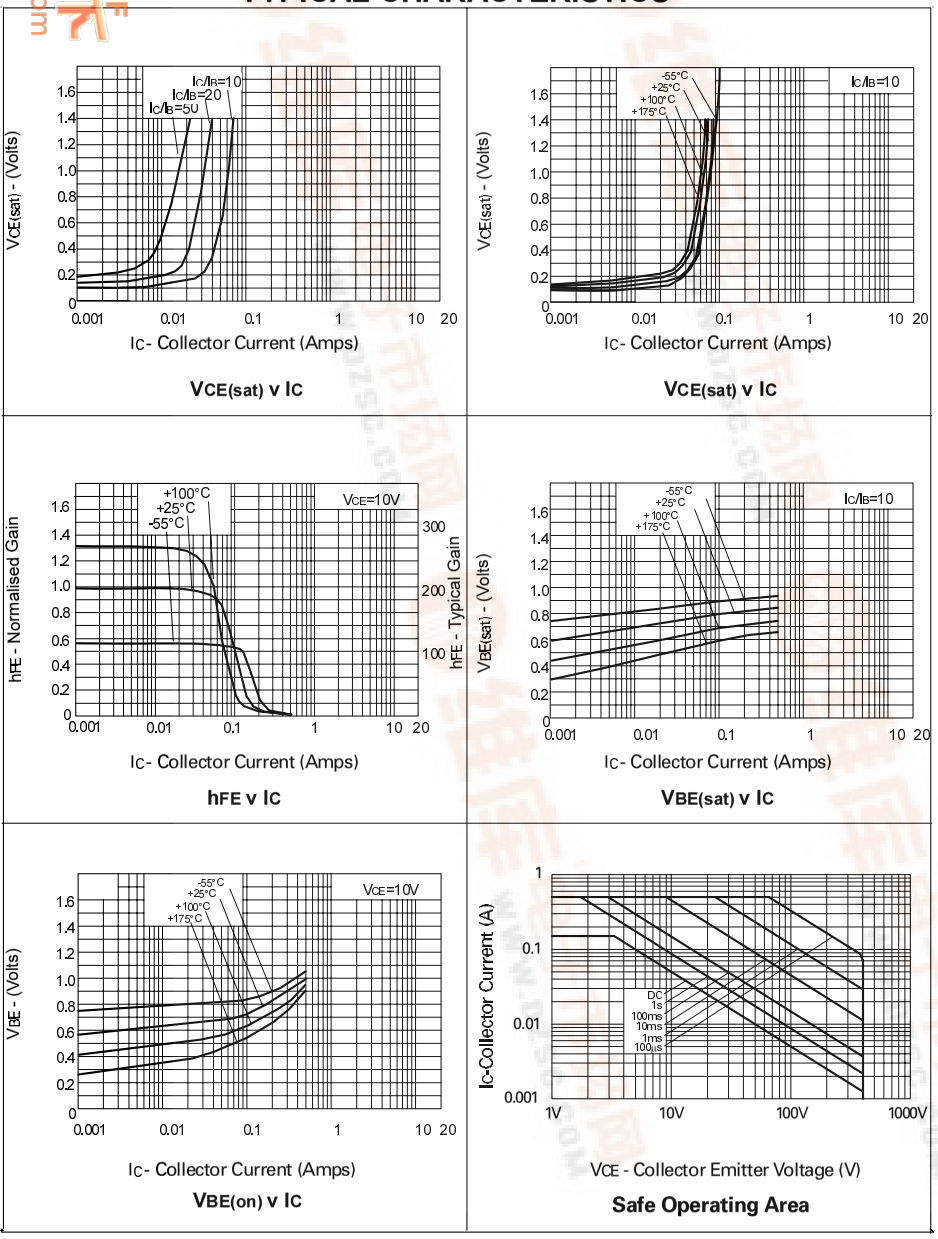
TYPICAL CHARACTERISTICS



SOT23 PNP SILICON PLANAR HIGH VOLTAGE TRANSISTOR

FMMT558

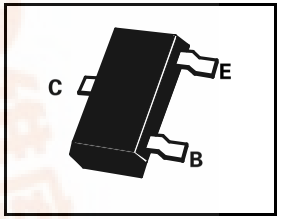
ISSUE 3 – JANUARY 1996

FEATURES

* Excellent h_{FE} characteristics at I_C=100mA
* Low saturation voltages

COMPLEMENTARY TYPE – FMMT458

PARTMARKING DETAIL – 558



ABSOLUTE MAXIMUM RATINGS.

PARAMETER	SYMBOL	VALUE	UNIT
Collector-Base Voltage	V_{CBO}	-400	V
Collector-Emitter Voltage	V_{CEO}	-400	V
Emitter-Base Voltage	V_{EBO}	-5	V
Peak Pulse Current	I_{CM}	-500	mA
Continuous Collector Current	I_C	-150	mA
Base Current	I_B	-200	mA
Power Dissipation	P_{tot}	500	mW
Operating and Storage Temperature Range	T_j:T_{stg}	-55 to +150	°C

ELECTRICAL CHARACTERISTICS (at T_{amb} = 25°C).

PARAMETER	SYMBOL	MIN.	MAX.	UNIT	CONDITIONS.
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	-400		V	I_C=-100µA
Collector-Emitter Breakdown Voltage	$V_{BR(CEO)}$	-400		V	I_C=-10mA*
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	-5		V	I_E=-100µA
Collector Cut-Off Current	I_{CBO}; I_{CES}		-100	nA	V_{CB}=-320V; V_{CE}=320V
Emitter Cut-Off Current	I_{EBO}		-100	nA	V_{EB}=-4V
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$		-0.2 -0.5	V V	I_C=-20mA, I_B=-2mA * I_C=-50mA, I_B=-6mA *
Base-Emitter Saturation Voltage	$V_{BE(sat)}$		-0.9	V	I_C=-50mA, I_B=-5mA *
Base-Emitter Turn On Voltage	$V_{BE(on)}$		-0.9	V	I_C=-50mA, V_{CE}=-10V *
Static Forward Current Transfer Ratio	h_{FE}	100 100 15	300		I_C=-1mA, V_{CE}=-10V I_C=-50mA, V_{CE}=-10V * I_C=-100mA, V_{CE}=-10V*
Transition Frequency	f_T	50		MHz	I_C=-10mA, V_{CE}=-20V f=20MHz
Collector-Base Breakdown Voltage	C_{obo}		5	pF	V_{CB}=-20V, f=1MHz
Switching times	t_{on} t_{off}		95 1600	ns ns	I_C=-50mA, V_{CE}=-100V I_{B1}=5mA, I_{B2}=-10mA

* Measured under pulsed conditions. Pulse width=300µs. Duty cycle ≤2%

Spice parameter data is available upon request for this device

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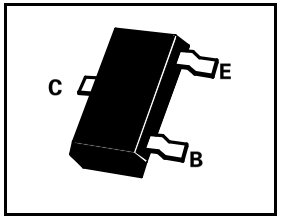

ABSOLUTE MAXIMUM RATINGS.

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Collector-Base Voltage	V_{CBO}	-400	V
Collector-Emitter Voltage	V_{CEO}	-400	V
Emitter-Base Voltage	V_{EBO}	-5	V
Peak Pulse Current	I_{CM}	-500	mA
Continuous Collector Current	I_C	-150	mA
Base Current	I_B	-200	mA
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Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	-5		V	I_E=-100μA
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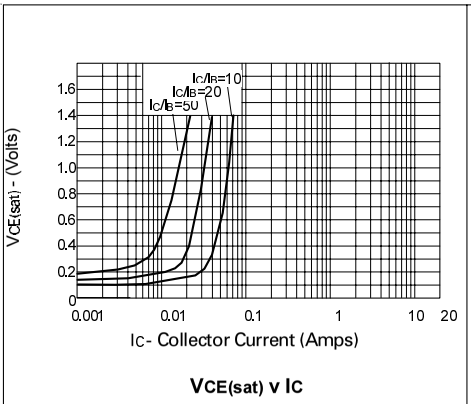
Emitter Cut-Off Current	I_{EBO}		-100	nA	V_{EB}=-4V
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$		-0.2 -0.5	V V	I_C=-20mA, I_B=-2mA * I_C=-50mA, I_B=-6mA *
Base-Emitter Saturation Voltage	$V_{BE(sat)}$		-0.9	V	I_C=-50mA, I_B=-5mA *
Base-Emitter Turn On Voltage	$V_{BE(on)}$		-0.9	V	I_C=-50mA, V_{CE}=-10V *
Static Forward Current Transfer Ratio	h_{FE}	100 100 15	300		I_C=-1mA, V_{CE}=-10V I_C=-50mA, V_{CE}=-10V * I_C=-100mA, V_{CE}=-10V*
Transition Frequency	f_T	50		MHz	I_C=-10mA, V_{CE}=-20V f=20MHz
Collector-Base Breakdown Voltage	C_{obo}		5	pF	V_{CB}=-20V, f=1MHz
Switching times	t_{on} t_{off}		95 1600	ns ns	I_C=-50mA, V_{CE}=-100V I_{B1}=5mA, I_{B2}=-10mA

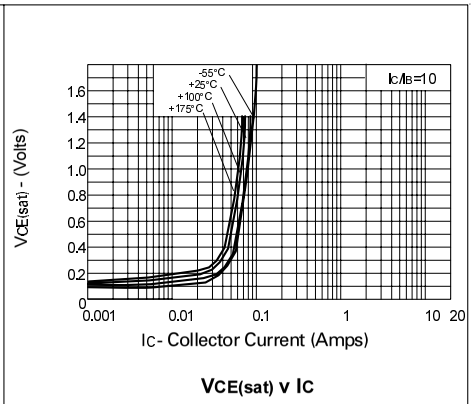
* Measured under pulsed conditions. Pulse width=300μs. Duty cycle ≤2%

Spice parameter data is available upon request for this device

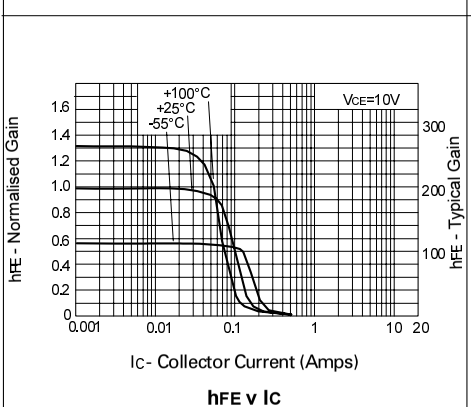
TYPICAL CHARACTERISTICS



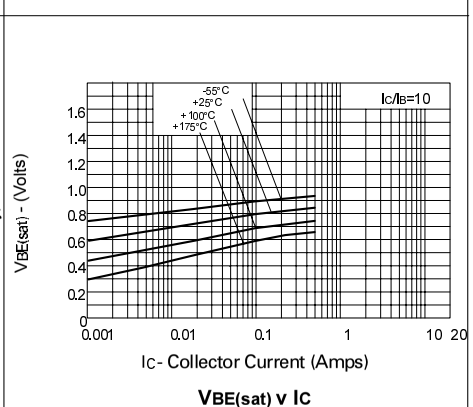
VCE(sat) v IC



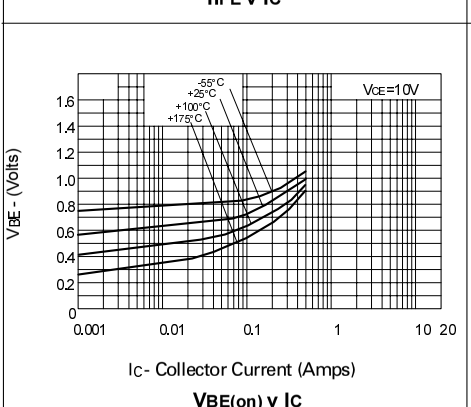
VCE(sat) v IC



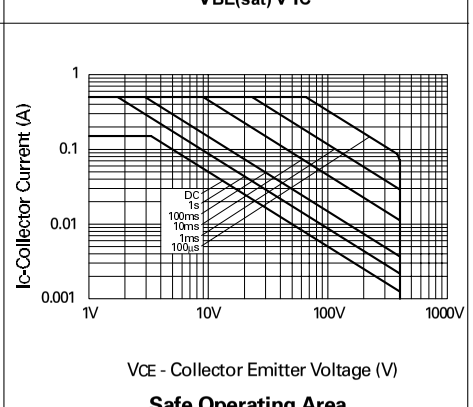
hFE v IC



VBE(sat) v IC



VBE(on) v IC



Safe Operating Area