

SOT23 PNP SILICON PLANAR HIGH VOLTAGE TRANSISTOR

FMMT558

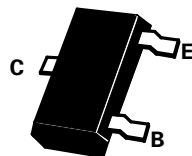
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FEATURES

- * Excellent h_{FE} characteristics at $I_C=100\text{mA}$
- * 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 $T_{amb} = 25^\circ\text{C}$).

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

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

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TYPICAL CHARACTERISTICS

