

SOT23 PNP SILICON PLANAR MEDIUM POWER TRANSISTOR

FM5T551

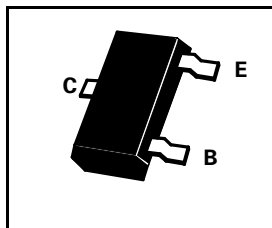
ISSUE 3 - OCTOBER 1995

FEATURES

- * 60 Volt V_{CE0}
- * 1 Amp continuous current

COMPLEMENTARY TYPE – FM5T451

PARTMARKING DETAIL – 551



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}	-2	A
Continuous Collector Current	I_C	-1	A
Base Current	I_B	-200	mA
Power Dissipation at $T_{amb}=25^{\circ}C$	P_{tot}	500	mW
Operating and Storage Temperature Range	$T_j; T_{stg}$	-55 to +200	$^{\circ}C$

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

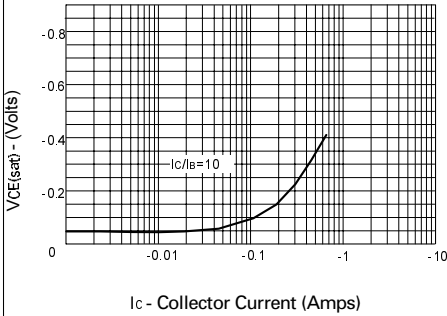
PARAMETER	SYMBOL	MIN.	MAX.	UNIT	CONDITIONS.
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	-80		V	$I_C = -100\mu A$
Collector-Emitter Sustaining Voltage	$V_{CEO(sus)}$	-60		V	$I_C = -10mA^*$
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	-5		V	$I_E = -100\mu A$
Collector Cut-Off Current	I_{CBO}		-0.1	μA	$V_{CB} = -60V$
Emitter Cut-Off Current	I_{EBO}		-0.1	μA	$V_{EB} = -4V$
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$		-0.35	V	$I_C = -150mA, I_B = -15mA^*$
Base-Emitter Saturation Voltage	$V_{BE(sat)}$		-1.1	V	$I_C = -150mA, I_B = -15mA^*$
Static Forward Current Transfer Ratio	h_{FE}	50 10	150		$I_C = -150mA, V_{CE} = -10V^*$ $I_C = -1A, V_{CE} = -10V^*$
Transition Frequency	f_T	150		MHz	$I_C = -50mA, V_{CE} = -10V$ $f = 100MHz$
Output Capacitance	C_{obo}		25	pF	$V_{CB} = -10V, f = 1MHz$

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

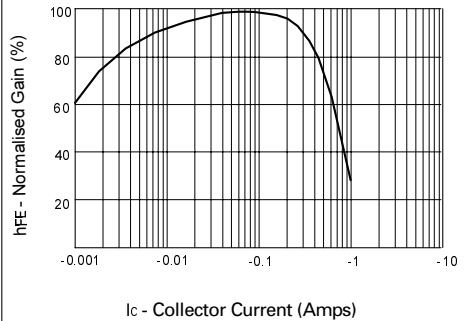
Spice parameter data is available upon request for this device

FMMT551

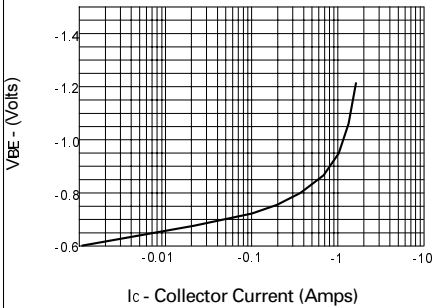
TYPICAL CHARACTERISTICS



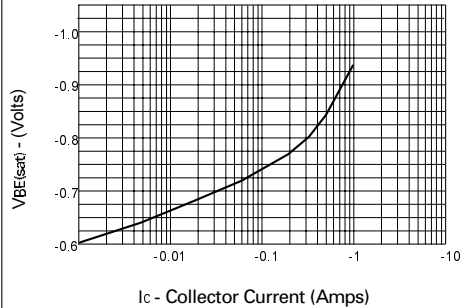
$V_{CE(sat)}$ v I_C



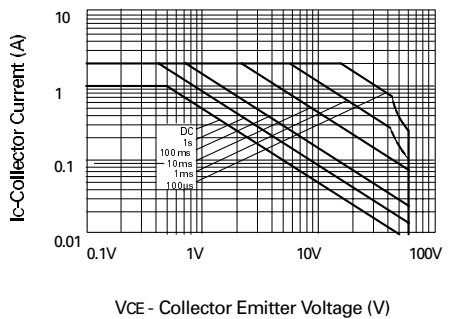
h_{FE} v I_C



$V_{BE(on)}$ v I_C



$V_{BE(sat)}$ v I_C



Safe Operating Area