

# SOT23 PNP SILICON PLANAR MEDIUM POWER TRANSISTOR

## FM551

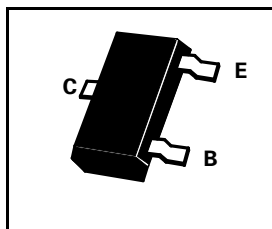
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### FEATURES

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

COMPLEMENTARY TYPE – FM551

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 $T_{amb} = 25^{\circ}C$ ).

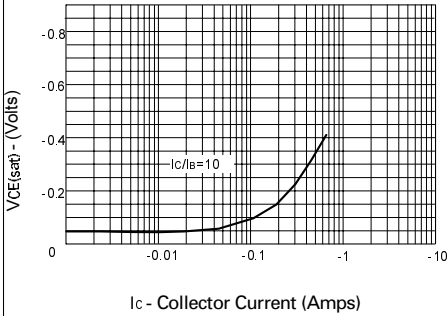
PARAMETER	SYMBOL	MIN.	MAX.	UNIT	CONDITIONS.
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	-80		V	$I_C = -100\mu A$
Collector-Emitter Sustaining Voltage	$V_{CEO(sus)}$	-60		V	$I_C = -10mA^*$
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	-5		V	$I_E = -100\mu A$
Collector Cut-Off Current	$I_{CBO}$		-0.1	$\mu A$	$V_{CB} = -60V$
Emitter Cut-Off Current	$I_{EBO}$		-0.1	$\mu A$	$V_{EB} = -4V$
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 $\mu s$ . Duty cycle  $\leq 2\%$

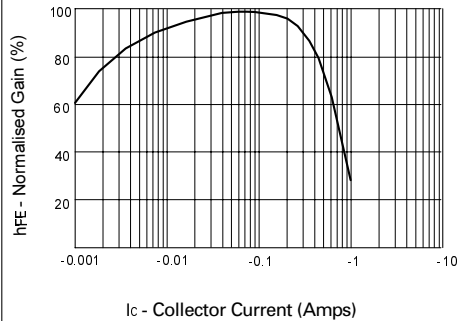
Spice parameter data is available upon request for this device

# FMMT551

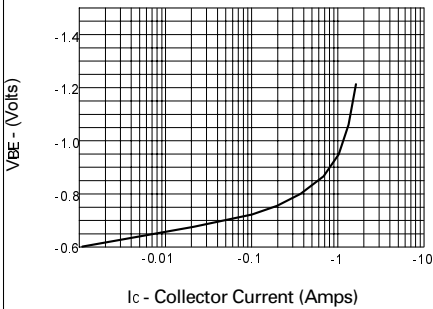
## TYPICAL CHARACTERISTICS



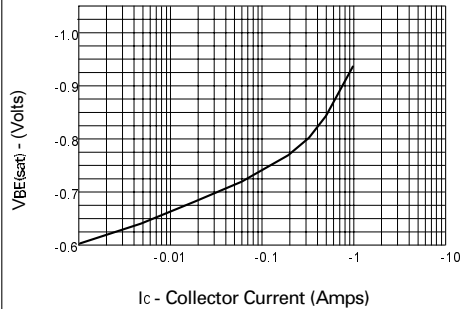
**$V_{CE(sat)}$  v  $I_C$**



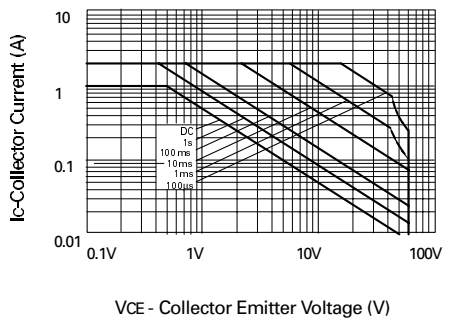
**$h_{FE}$  v  $I_C$**



**$V_{BE(on)}$  v  $I_C$**



**$V_{BE(sat)}$  v  $I_C$**



**Safe Operating Area**