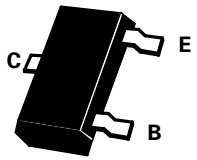
SOT23 PNP SILICON PLANAR MEDIUM POWER TRANSISTOR

FMMT591

ISSUE 3 - OCTOBER 1995 ✪

FEATURES

* Low Equivalent on resistance $R_{CE(sat)}$=355mΩ at 1A*



COMPLEMENTARY TYPE- FMMT491
PARTMARKING DETAIL - 591

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°C	P_{tot}	500	mW
Operating and Storage Temperature Range	T_j:T_{stg}	-55 to +150	°C

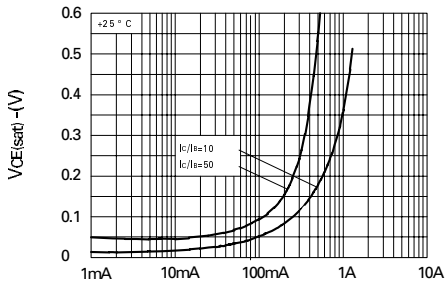
ELECTRICAL CHARACTERISTICS (at T_{amb} = 25°C).

PARAMETER	SYMBOL	MIN.	MAX.	UNIT	CONDITIONS.
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	-80		V	I_C=-100μA, I_E=0
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	-60		V	I_C=-10mA, I_B=0*
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	-5		V	I_E=-100μA, I_C=0
Collector Cut-Off Current	I_{CBO}		-100	nA	V_{CB}=-60V
Emitter Cut-Off Current	I_{EBO}		-100	nA	V_{EB}=-4V, I_C=0
Collector-Emitter Cut-Off Current	I_{CES}		-100	nA	V_{CES}=-60V
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$		-0.3 -0.6	V V	I_C=-500mA,I_B=-50mA* I_C=-1A, I_B=-100mA*
Base-Emitter Saturation Voltage	$V_{BE(sat)}$		-1.2	V	I_C=-1A, I_B=-100mA*
Base-Emitter Turn-on Voltage	$V_{BE(on)}$		-1.0	V	I_C=-1A, V_{CE}=-5V*
Static Forward Current Transfer Ratio	h_{FE}	100 100 80 15	300		I_C=-1mA, V_{CE}=-5V* I_C=-500mA, V_{CE}=-5V* I_C=-1A, V_{CE}=-5V* I_C=-2A, V_{CE}=-5V*
Transition Frequency	f_T	150		MHz	I_C=-50mA, V_{CE}=-10V f=100MHz
Output Capacitance	C_{obo}		10	pF	V_{CB}=-10V, f=1MHz

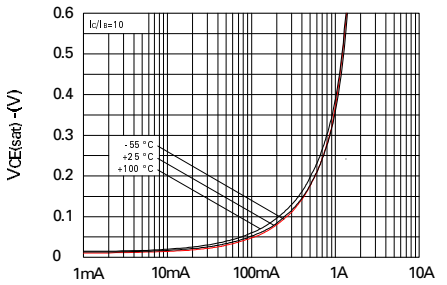
*Measured under pulsed conditions. Pulse width=300μs. Duty cycle ≤ 2%

FMMT591

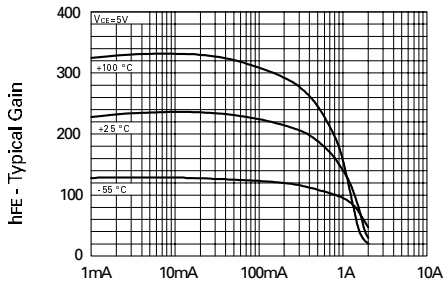
TYPICAL CHARACTERISTICS



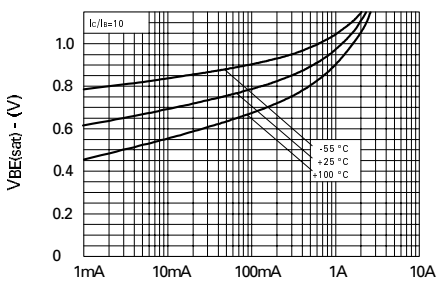
VCE(sat) v IC



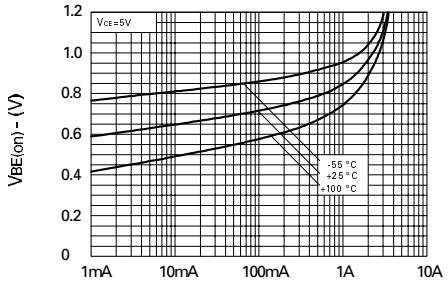
VCE(sat) v Ic



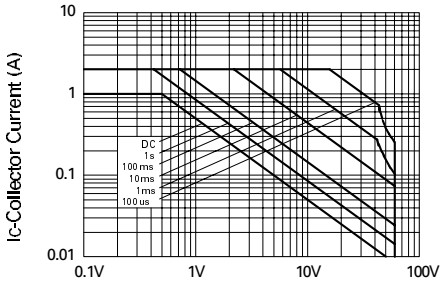
hFE V IC



VBE(sat) v Ic



VBE(on) v IC



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