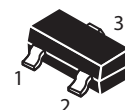
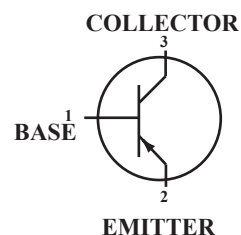




迈拓电子
MAITUO ELECTRONIC

FMMT593 General Purpose Transistor PNP Silicon

Marking 593



SOT-23

Maximum Ratings

Rating	Symbol	Value	Unit
Collector-Base Breakdown Voltage	$V_{(BR)CEO}$	-120	V
Collector-Emitter Breakdown Voltage	$V_{(BR)CBO}$	-100	V
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	-5.0	V
Collector Current	I_C	-1.0	A
Power Dissipation $T_A=25^{\circ}C$	P_D	250	mW
Junction Temperature Range	T_J	+150	$^{\circ}C$
Storage Temperature Range	T_{STG}	-55 to +150	$^{\circ}C$

Electrical Characteristics ($T_A=25^{\circ}C$ Unless Otherwise noted)

Characteristics	Symbol	Min	Typ	Max	Unit
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Off Characteristics

Collector-Emitter Breakdown Voltage ¹ $I_C = -10mA, I_B = 0$	$V_{(BR)CEO}$	-100	-	-	V
Collector-Base Breakdown Voltage $I_C = -100\mu A, I_E = 0$	$V_{(BR)CBO}$	-120	-	-	V
Collector Cutoff Current $I_C = 0, I_E = -100\mu A$	$V_{(BR)EBO}$	-5.0	-	-	V
Collector Cut-off Current $V_{CB} = -100V, I_E = 0$	I_{CBO}	-	-	-0.1	μA
Emitter Cut-off Current $V_{EB} = -4V, I_C = 0$	I_{EBO}	-	-	-0.1	μA



Electrical Characteristics ($T_A=25^{\circ}\text{C}$ Unless Otherwise noted)

Characteristics	Symbol	Min	Typ	Max	Unit
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On Characteristics ⁽¹⁾

DC Current Gain $V_{CE} = -5.0\text{V}$, $I_C = -1.0\text{mA}$ $V_{CE} = -5.0\text{V}$, $I_C = -250\text{mA}$ $V_{CE} = -5.0\text{V}$, $I_C = -0.5\text{A}$ $V_{CE} = -5.0\text{V}$, $I_C = -1.0\text{A}$	h_{FE1} h_{FE2} h_{FE3} h_{FE4}	100 100 100 50	- - - -	- - 300 -	-
Collector-Emitter Saturation Voltage $I_C = -250\text{mA}$, $I_B = -25\text{mA}$ $I_C = -0.5\text{A}$, $I_B = -50\text{mA}$	$V_{CE(sat)}$	-	-	-0.2 -0.3	V
Base-Emitter Saturation Voltage $I_C = -0.5\text{A}$, $I_B = -50\text{mA}$	$V_{BE(sat)}$	-	-	-1.1	V
Base-Emitter Voltage $V_{CE} = -5.0\text{V}$, $I_C = -1\text{mA}$	$V_{BE(on)}$	-	-	-1.0	V

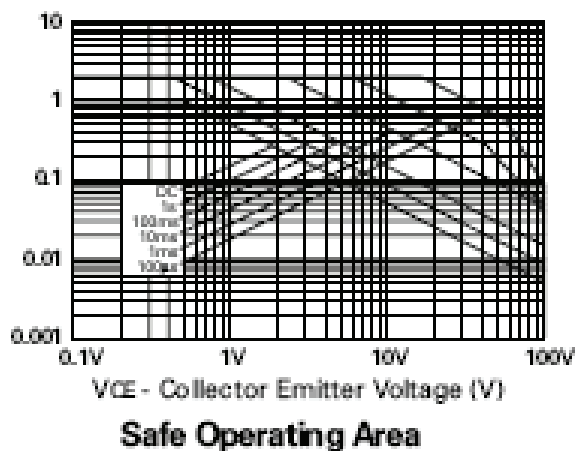
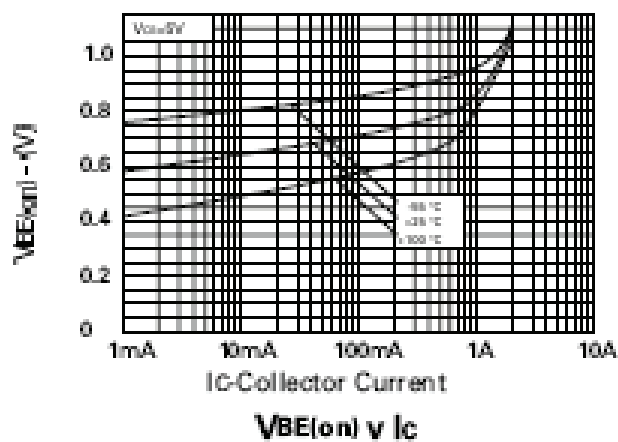
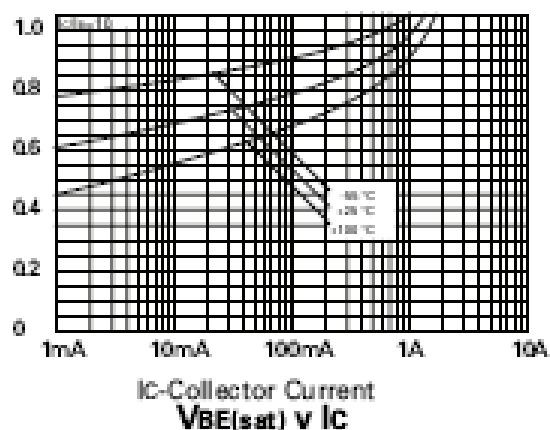
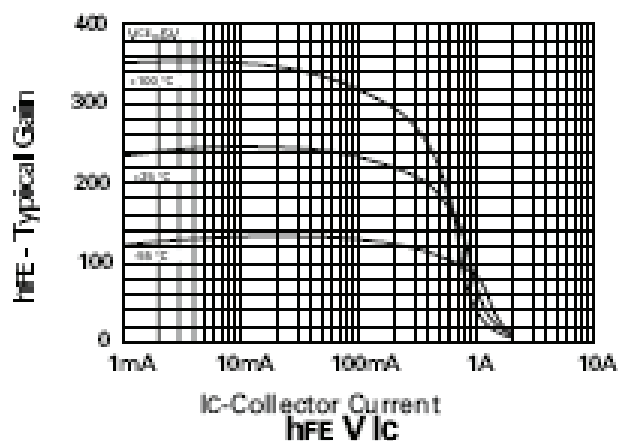
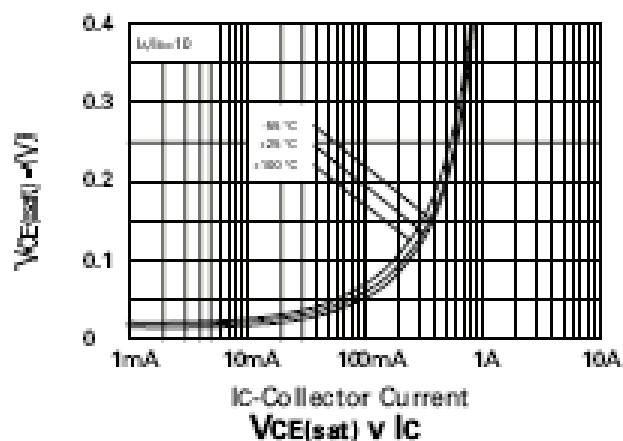
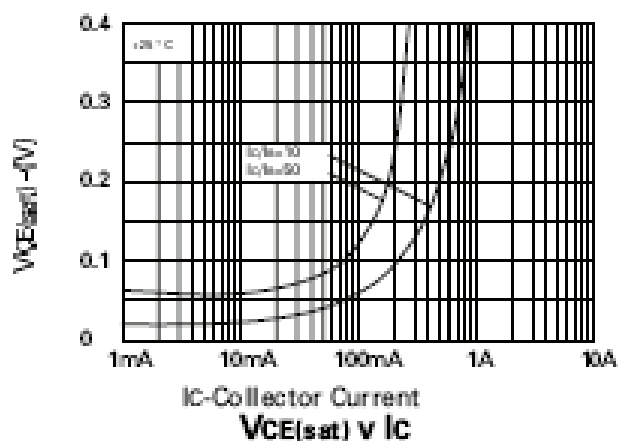
Small-signal Characteristics

Transition Frequency $V_{CE} = -10\text{V}$, $I_C = -50\text{mA}$, $f = 100\text{MHz}$	f_T	150	-	-	MHz
Output Capacitance $V_{CB} = -10\text{V}$, $f = 1.0\text{MHz}$	C_{ob}	-	-	5	pF

1. Measured under pulsed conditions, Pulse width = $300\mu\text{s}$, Duty cycle $\leq 2\%$.



TYPICAL TRANSIENT CHARACTERISTICS

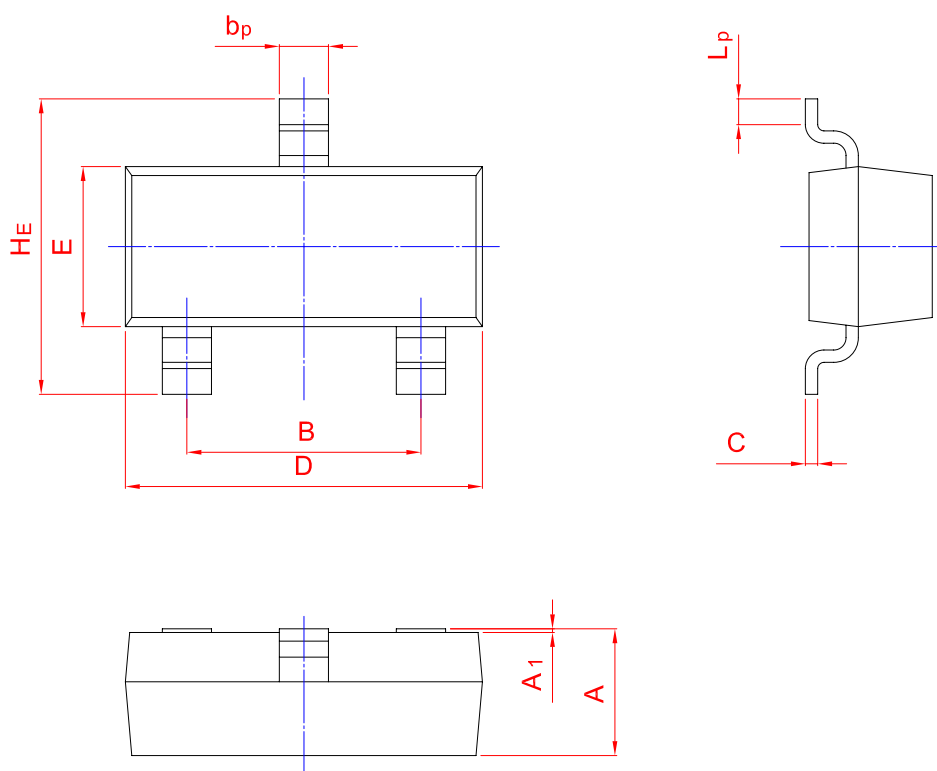
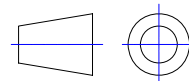




PACKAGE OUTLINE

Plastic surface mounted package; 3 leads

SOT-23



UNIT	A	B	bp	C	D	E	HE	A1	Lp
mm	1.40 0.95	2.04 1.78	0.50 0.35	0.19 0.08	3.10 2.70	1.65 1.20	3.00 2.20	0.100 0.013	0.50 0.20