

PNP Silicon Planar High Voltage Transistor

FMMT593

FEATURES

- High saturation voltage.
- Complementary To FMMT491.
- Excellent H_{FE} Linearity.

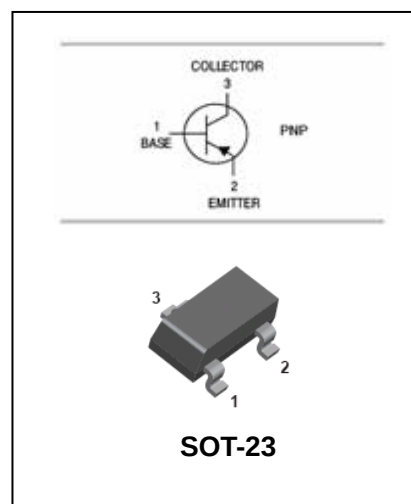


APPLICATIONS

- Switching application.

ORDERING INFORMATION

Type No.	Marking	Package Code
FMMT593	593	SOT-23



MAXIMUM RATING @ $T_a=25^{\circ}\text{C}$ unless otherwise specified

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	-120	V
V_{CEO}	Collector-Emitter Voltage	-100	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current -Continuous	-1	A
P_C	Collector Dissipation	500	mW
T_j, T_{stg}	Junction and Storage Temperature	-55 to +150	$^{\circ}\text{C}$



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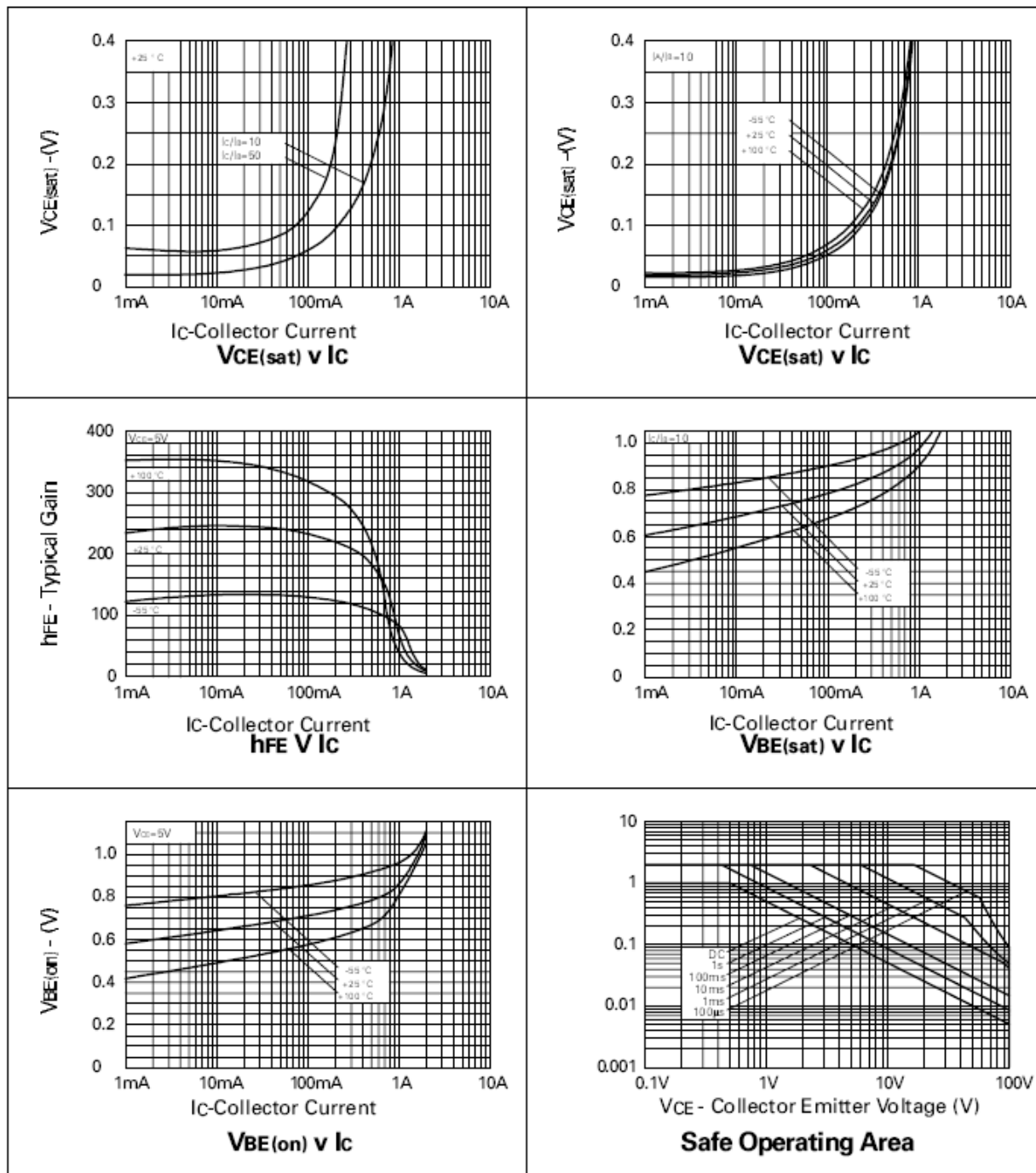
ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = -100\mu A, I_E = 0$	-120			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = -10mA, I_B = 0$	-100			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = -100\mu A, I_C = 0$	-5			V
Collector cut-off current	I_{CBO}	$V_{CB} = -100V, I_E = 0$			-0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = -4V, I_C = 0$			-0.1	μA
Collector-Emitter cut-off current	I_{CES}	$V_{CES} = -100V, I_C = 0$			-0.1	μA
DC current gain	h_{FE}	$V_{CE} = -5V, I_C = -1mA$	100			
		$V_{CE} = -5V, I_C = -250mA$	100			
		$V_{CE} = -5V, I_C = -500mA$	100		300	
		$V_{CE} = -5V, I_C = -1A$	50			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -250mA, I_B = -25mA$ $I_C = -500mA, I_B = -50mA$			-0.2 -0.3	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C = -500mA, I_B = -50mA$			-1.1	V
Base-emitter voltage	$V_{BE(on)}$	$V_{CE} = -5V, I_C = -1A$			-1.0	V
Transition frequency	f_T	$V_{CE} = -10V, I_C = -50mA$ $f = 100MHz$	50			MHz
Collector output capacitance	C_{ob}	$V_{CB} = -10V, I_E = 0, f = 1MHz$			5	pF

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TYPICAL CHARACTERISTICS @ $T_a=25^\circ\text{C}$ unless otherwise specified



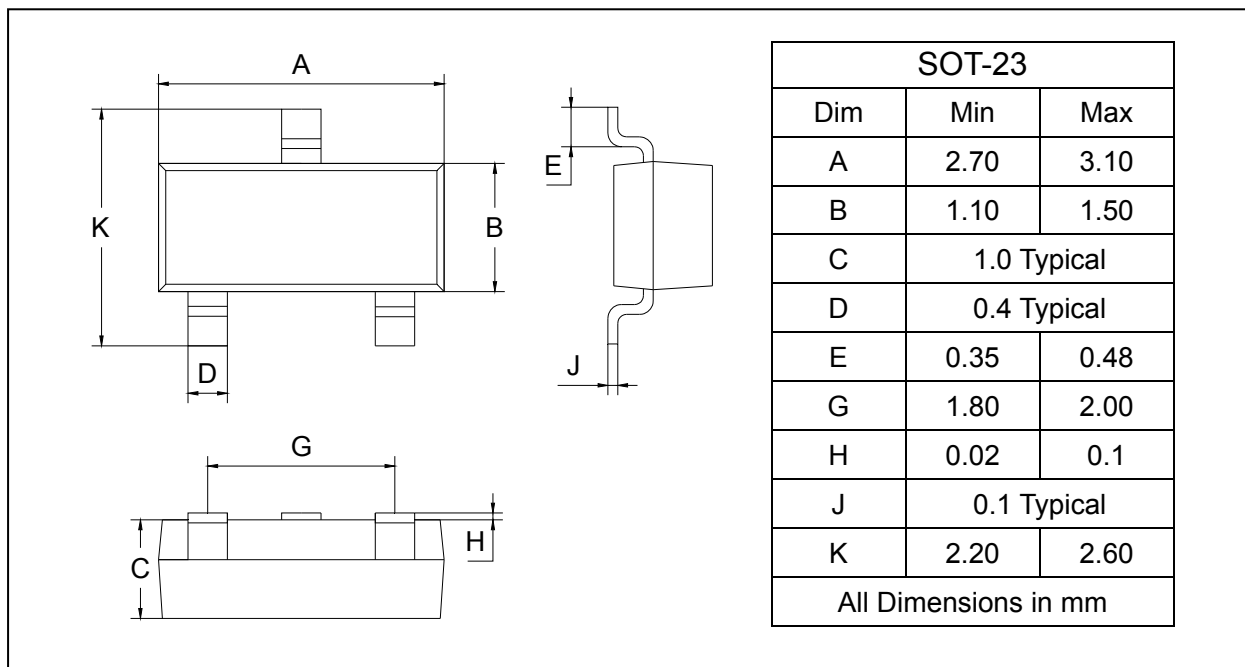
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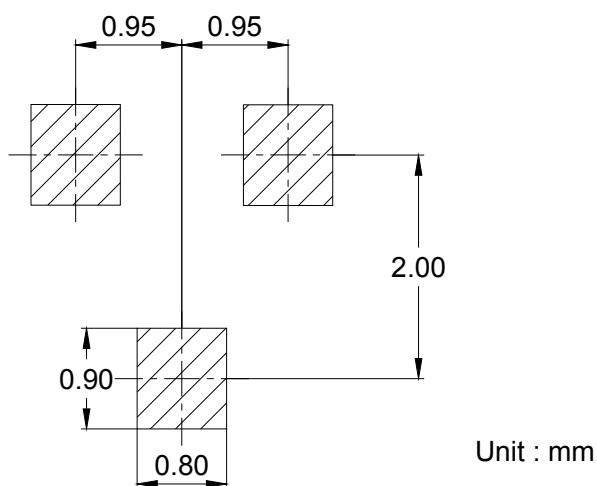
PACKAGE OUTLINE

Plastic surface mounted package

SOT-23



SOLDERING FOOTPRINT



PACKAGE INFORMATION

Device	Package	Shipping
FMMT593	SOT-23	3000/Tape&Reel