



### FMMT591 Transistor(PNP)

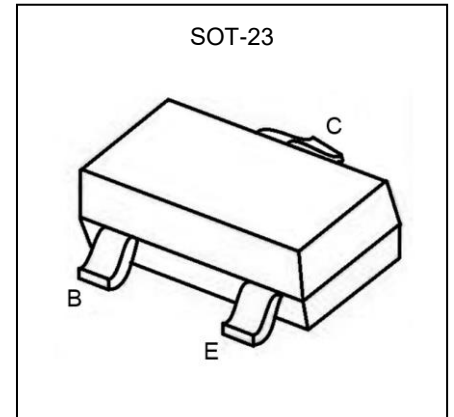
#### Feature

- Switching Transistor

Marking: 591

#### MAXIMUM RATINGS (T<sub>a</sub>=25°C unless otherwise noted)

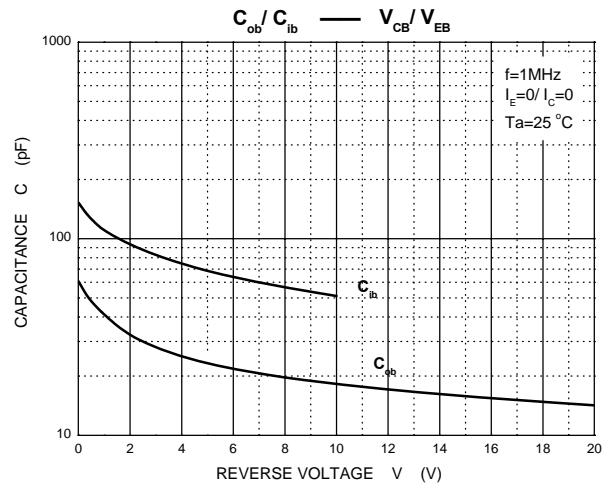
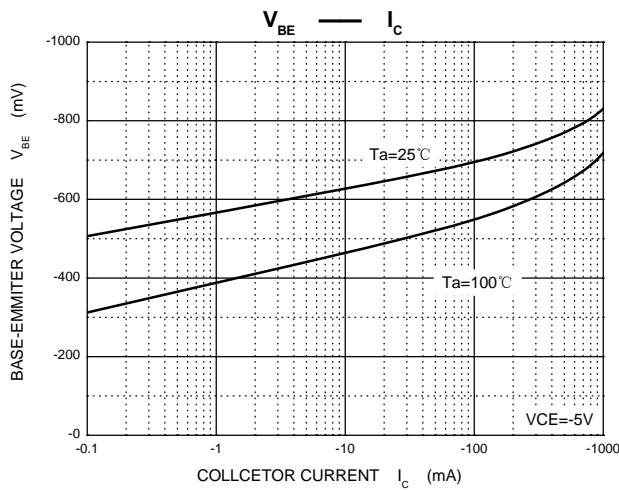
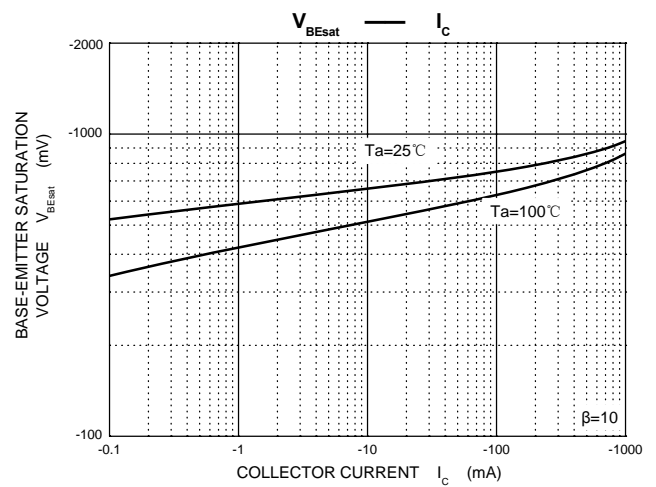
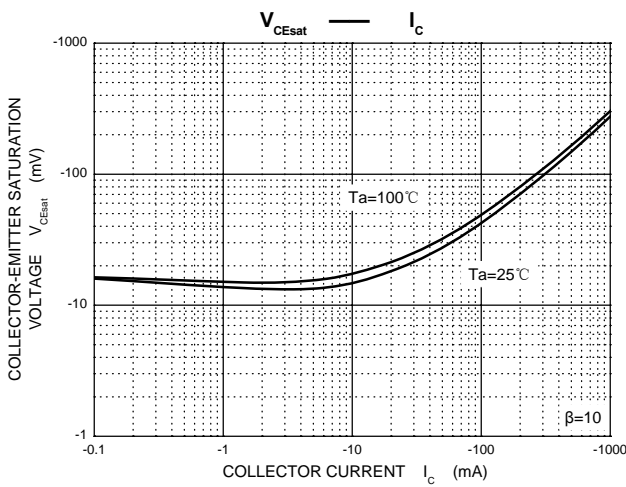
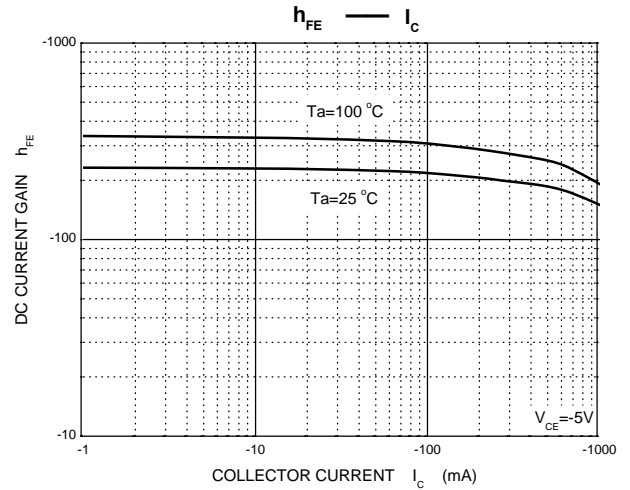
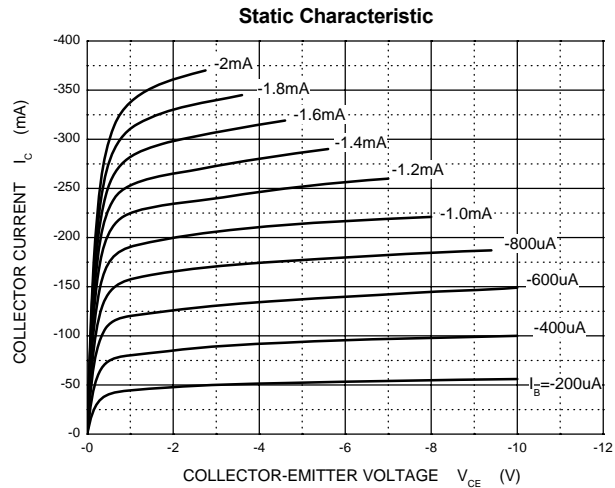
Parameter	Symbol	Value	Unit
Collector-Base Voltage	V <sub>CB0</sub>	-80	V
Collector-Emitter Voltage	V <sub>CEO</sub>	-60	V
Emitter-Base Voltage	V <sub>EBO</sub>	-5	V
Collector Current -Continuous	I <sub>c</sub>	-1	A
Power Dissipation	P <sub>d</sub>	0.5	W
Thermal Resistance From Junction To Ambient	R <sub>θJA</sub>	500	°C/W
Junction Temperature	T <sub>J</sub>	150	°C
Storage Temperature	T <sub>STG</sub>	-55~ +150	°C

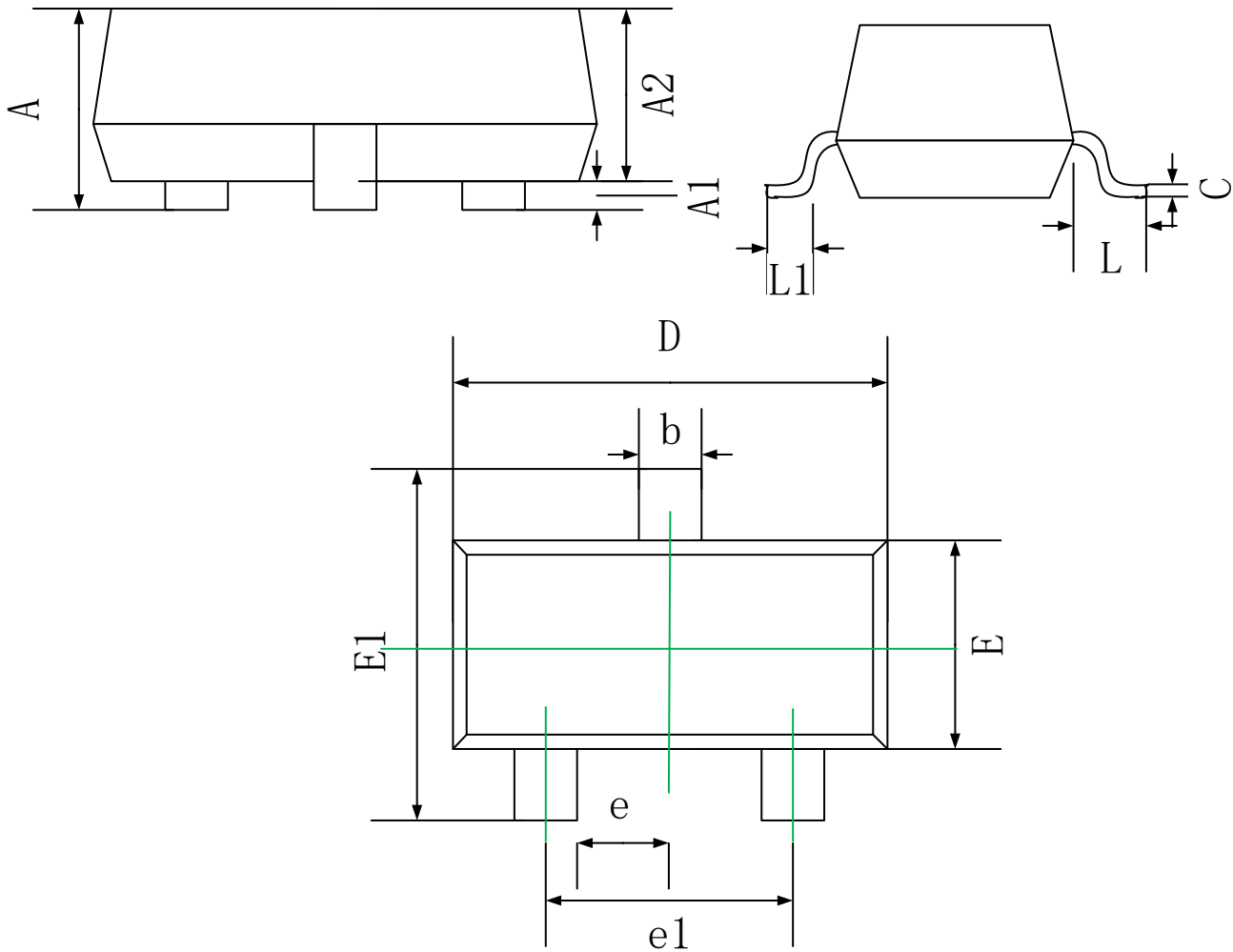


#### ELECTRICAL CHARACTERISTICS(T<sub>a</sub>=25°C unless otherwise noted)

Parameter	Symbol	Test Condition	Min	Max	Unit
Collector-base breakdown voltage	V <sub>(BR)CBO</sub>	I <sub>C</sub> =-100μA, I <sub>E</sub> =0	-80		V
Collector-emitter breakdown voltage	V <sub>(BR)CEO</sub>	I <sub>C</sub> =-10mA, I <sub>B</sub> =0	-60		V
Emitter-base breakdown voltage	V <sub>(BR)EBO</sub>	I <sub>E</sub> =-100μA, I <sub>C</sub> =0	5		V
Collector cut-off current	I <sub>CBO</sub>	V <sub>CB</sub> =-60V, I <sub>E</sub> =0		-0.1	μA
Emitter cut-off current	I <sub>EBO</sub>	V <sub>EB</sub> =-4V, I <sub>C</sub> =0		-0.1	μA
DC current gain	h <sub>FE1</sub>	V <sub>CE</sub> =-5V, I <sub>C</sub> =-1mA	100		
	h <sub>FE3</sub>	V <sub>CE</sub> =-5V, I <sub>C</sub> =-500mA	100	400	
	h <sub>FE4</sub>	V <sub>CE</sub> =-5V, I <sub>C</sub> =-1A	80		
	h <sub>FE5</sub>	V <sub>CE</sub> =-5V, I <sub>C</sub> =-2A	15		
Collector-emitter saturation voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> =-500mA, I <sub>B</sub> =-50mA		-0.3	V
		I <sub>C</sub> =-1A, I <sub>B</sub> =-100mA		-0.6	V
Base-emitter saturation voltage	V <sub>BE(sat)</sub>	I <sub>C</sub> =-1A, I <sub>B</sub> =-100mA		-1.2	V
Transition frequency	f <sub>T</sub>	V <sub>CE</sub> =-10V, I <sub>C</sub> =-50mA, f =100MHz	150		MHZ
Input capacitance	C <sub>OB</sub>	V <sub>CB</sub> =-10V, I <sub>E</sub> =0, f=1MHz		10.0	pF

**Typical Characteristics**



**SOT-23 Package Information**


Symbol	Dimensions In Millimeters	
	Min.	Max.
A	0.90	1.15
A1	0.00	0.10
A2	0.90	1.05
b	0.30	0.50
c	0.08	0.15
D	2.80	3.00
E	1.20	1.40
E1	2.25	2.55
e	0.95 REF.	
e1	1.80	2.00
L	0.55 REF.	
L1	0.30	0.50