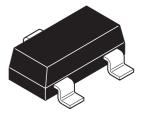


FMMT596 SOT 23 PNP silicon planar high voltage transistor

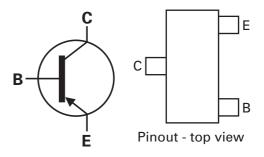
Ordering information

Device	Reel size (inches	Tape width (mm)	Quantity per reel
FMMT596TA	7	8	3,000



Device marking

596



Absolute maximum ratings

Parameter	Symbol	Value	Unit
Collector-base voltage	V _{CBO}	-220	V
Collector-emitter voltage	V_{CEO}	-200	V
Emitter-base voltage	V _{EBO}	-5	V
Peak pulse current	I _{CM}	-1	А
Continuous collector current	I _C	-0.3	Α
Base current	Ι _Β	-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

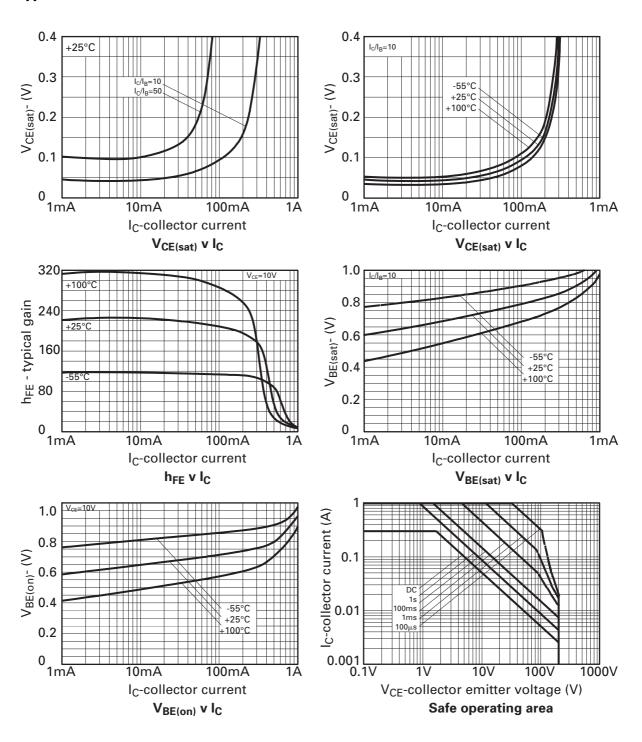
Electrical characteristics ($T_{amb} = 25^{\circ}C$)

Parameter	Symbol	Min.	Тур.	Max.	Unit	Conditions
Collector-base breakdown voltage	V _{(BR)CBO}	-220			V	I _C =-100μA
Collector-emitter breakdown voltage	V _{(BR)CEO}	-200			V	I _C =-10mA ^(*)
Emitter-base breakdown voltage	V _{(BR)EBO}	-5			V	I _E =-100μA
Collector cut-off current	I _{CBO}			-100	nA	V _{CB} =-200V
Emitter cut-off current	I _{EBO}			-100	nA	V _{EB} =-4V
Collector-emitter cut-off current	I _{CES}			-100	nA	V _{CES} =-200V
Collector-emitter saturation voltage	V _{CE(sat)}			-0.2 -0.35	V V	I _C =-100mA, I _B =-10mA, I _B =-250mA, I _B =-25mA ^(*)
Base-emitter saturation voltage	V _{BE(sat)}			-1.0	V	I _C =-250mA, I _B =-25mA ^(*)
Base-emitter turn-on voltage	V _{BE(on)}			-0.9	V	I _C =-250mA, V _{CE} =-10V ^(*)
Static forward current transfer ratio	h _{FE}	100				I _C =-1mA, V _{CE} =-10V
transfer ratio		100				I _C =-100mA, V _{CE} =-10V ^(*)
		85		300		I _C =-250mA, V _{CE} =-10V ^(*)
		35				I _C =-400mA, V _{CE} =-10V ^(*)
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
Switching times	td		22		ns	I _C =-200mA, V _{CC} =-80V
	tr		19			I _{b1} =I _{b2} =-20mA
	ts		472			
	tf		70			
Switching times	td		44		ns	I _C =-100mA, V _{CC} =-80V
	tr		31			I _{b1} =I _{b2} =-10mA
	ts		665			
	tf		76			

NOTES:

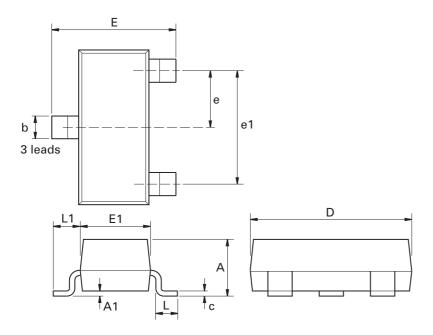
^(*) Measured under pulsed conditions. Pulse width = 300 $\mu s.$ Duty cycle ${\le}2\%.$

Typucal characteristics



FMMT596

Package outline - SOT23



Dim.	Millin	neters	Inc	hes	Dim.	Millimeters		Inches	
	Min.	Мах.	Min.	Max.		Min.	Max.	Min.	Max.
Α	-	1.12	-	0.044	e1	1.90 NOM		0.075 NOM	
A1	0.01	0.10	0.0004	0.004	Е	2.10	2.64	0.083	0.104
b	0.30	0.50	0.012	0.020	E1	1.20	1.40	0.047	0.055
С	0.085	0.20	0.003	0.008	L	0.25	0.60	0.0098	0.0236
D	2.80	3.04	0.110	0.120	L1	0.45	0.62	0.018	0.024
е	0.95	NOM	0.037	NOM	-	-	-	-	-

Note: Controlling dimensions are in millimeters. Approximate dimensions are provided in inches

FMMT596

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"Obsolete"	Production has been discontinued
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