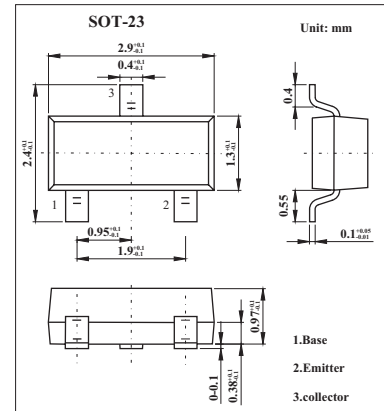


## Switching Transistors

## FMMT4126

## ■ Features

- Switching transistors.

■ Absolute Maximum Ratings  $T_a = 25^\circ\text{C}$ 

Parameter	Symbol	Rating	Unit
Collector-base voltage	$V_{CB0}$	-25	V
Collector-emitter voltage	$V_{CEO}$	-25	V
Emitter-base voltage	$V_{EBO}$	-4	V
Collector current	$I_C$	-200	mA
Power dissipation	$P_{tot}$	330	mW
Operating and storage temperature range	$T_j, T_{stg}$	-55 to +150	$^\circ\text{C}$

## FMMT4126

## ■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	V <sub>(BR)CBO</sub>	I <sub>C</sub> =-10mA,	-25			V
Collector-emitter breakdown voltage	V <sub>(BR)CEO</sub>	I <sub>C</sub> =-1mA,	-25			V
Emitter-base breakdown voltage	V <sub>(BR)EBO</sub>	I <sub>E</sub> =-10mA,	-4			V
Collector cutoff current	I <sub>CBO</sub>	V <sub>CE</sub> =-20V			-50	nA
Emitter cut-off current	I <sub>EBO</sub>	V <sub>EB</sub> =-3V			-50	nA
Collector-emitter saturation voltage *	V <sub>CE(sat)</sub>	I <sub>C</sub> =-50mA, I <sub>B</sub> =-5mA			-0.4	V
Base-emitter saturation voltage *	V <sub>BE(sat)</sub>	I <sub>C</sub> =-50mA, I <sub>B</sub> =-5mA			-0.95	V
DC current gain *	h <sub>FE</sub>	I <sub>C</sub> =-2mA, V <sub>CE</sub> =-1V	120		360	
Current-gain-bandwidth product	f <sub>T</sub>	I <sub>C</sub> =-10mA, V <sub>CE</sub> =-20V f=100MHz	250			MHz
Output capacitance	C <sub>obo</sub>	V <sub>CB</sub> =-5V, I <sub>E</sub> =0, f=140KHz			4.5	pF
Input capacitance	C <sub>ibo</sub>	V <sub>BE</sub> =-0.5V, I <sub>C</sub> =0, f=140KHz			10	pF
Noise figure	NF	V <sub>CE</sub> =-5V I <sub>C</sub> =-200mA, R <sub>g</sub> =-2K? f=30Hz to 15KHz at -3dB points			4	dB
Small signal current transfer	h <sub>fe</sub>	I <sub>C</sub> =-2mA, V <sub>CE</sub> =-1V, f=1KHz	120	180		
Delay time	t <sub>d</sub>	V <sub>CC</sub> =-3V, I <sub>C</sub> =-10mA, I <sub>B1</sub> =-1mA			25	ns
Rise time	t <sub>r</sub>	V <sub>BE(off)</sub> =-0.5V			18	ns
Storage time	t <sub>s</sub>	V <sub>CC</sub> =-3V, I <sub>C</sub> =-10mA			140	ns
Fall time	t <sub>f</sub>	I <sub>B1</sub> = I <sub>B2</sub> =-1mA			15	ns

\* Pulse test: t<sub>p</sub> ≤ 300 μs; d ≤ 0.02.

## ■ Marking

Marking	ZE
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