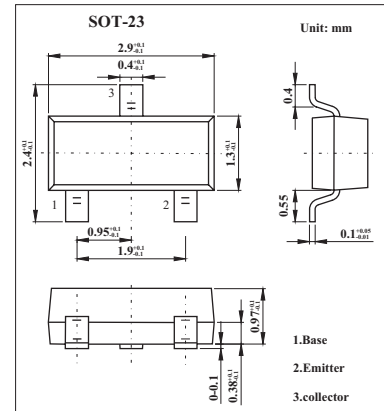


## Switching Transistors

## FMMT4124

## ■ Features

- Switching transistors.

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

Parameter	Symbol	Rating	Unit
Collector-base voltage	$V_{CB0}$	30	V
Collector-emitter voltage	$V_{CE0}$	25	V
Emitter-base voltage	$V_{EB0}$	5	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	$^\circ\text{C}$

## FMMT4124

## ■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	V(BR)CBO	Ic=10mA	30			V
Collector-emitter breakdown voltage	V(BR)CEO	Ic=1mA	25			V
Emitter-base breakdown voltage	V(BR)EBO	Ie=10mA	5			V
Collector cutoff current	IcBO	VCE=20V			50	nA
Emitter cut-off current	IeBO	VEB=3V			50	nA
Collector-emitter saturation voltage *	VCE(sat)	Ic=50mA, Ib=5mA			0.3	V
Base-emitter saturation voltage *	VBE(sat)	Ic=50mA, Ib=5mA			0.95	V
DC current gain *	hFE	Ic=2mA, VCE=1V	120		360	
Current-gain-bandwidth product	fT	Ic=10mA, VCE=20V f=100MHz	300			MHz
Output capacitance	Cobo	VCB=5V, Ie=0, f=140KHz			4	pF
Input capacitance	Cibo	VBE=0.5V, Ic=0, f=140KHz			8	pF
Noise figure	NF	VCE=5V Ic=200mA, Rg=2K? f=30Hz to 15KHz at -3dB points			6	dB
Small signal current transfer	hfe	Ic=2mA, VCE=1V, f=1KHz	120	480		
Delay time	td	VCC=3V, Ic=10mA, Ib1=1mA VBE(off)=0.5V			24	ns
Rise time	tr				13	ns
Storage time	ts	VCC=3V, Ic=10mA Ib1= Ib2=1mA			125	ns
Fall time	tf				11	ns

\* Pulse test: tp ≤ 300 μs; d ≤ 0.02.

## ■ Marking

Marking	ZC
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