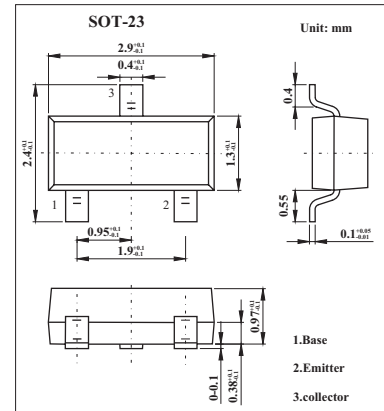


Switching Transistors

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			24	ns
Rise time	tr	VBE(off)=0.5V			13	ns
Storage time	ts	VCC=3V, Ic=10mA			125	ns
Fall time	tf	IB1= IB2=1mA			11	ns

* Pulse test: tp ≤ 300 μs; d ≤ 0.02.

■ Marking

Marking	ZC
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