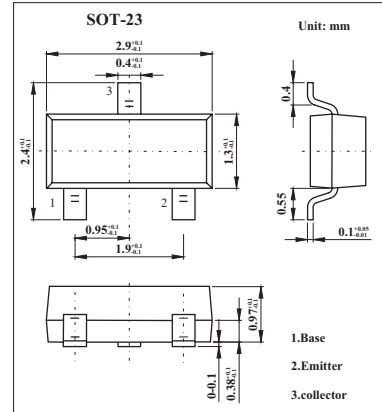




## FMMT4124

### ■ 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	$V_{(BR)CBO}$	$I_C=10\mu A$	30			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=1mA$	25			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=10\mu A$	5			V
Collector cutoff current	$I_{CBO}$	$V_{CE}=20V$			50	nA
Emitter cut-off current	$I_{EBO}$	$V_{EB}=3V$			50	nA
Collector-emitter saturation voltage *	$V_{CE(sat)}$	$I_C=50mA, I_B=5mA$			0.3	V
Base-emitter saturation voltage *	$V_{BE(sat)}$	$I_C=50mA, I_B=5mA$			0.95	V
DC current gain *	$h_{FE}$	$I_C=2mA, V_{CE}=1V$	120		360	
Current-gain-bandwidth product	$f_T$	$I_C=10mA, V_{CE}=20V, f=100MHz$	300			MHz
Output capacitance	$C_{obo}$	$V_{CB}=5V, I_E=0, f=140KHz$			4	pF
Input capacitance	$C_{ibo}$	$V_{BE}=0.5V, I_C=0, f=140KHz$			8	pF
Noise figure	NF	$V_{CE}=5V, I_C=200\mu A, R_g=2K?$ $f=30Hz$ to $15KHz$ at $-3dB$ points			6	dB
Small signal current transfer	$h_{fe}$	$I_C=2mA, V_{CE}=1V, f=1KHz$	120	480		
Delay time	$t_d$	$V_{CC}=3V, I_C=10mA, I_{B1}=1mA$			24	ns
Rise time	$t_r$	$V_{BE(off)}=0.5V$			13	ns
Storage time	$t_s$	$V_{CC}=3V, I_C=10mA$			125	ns
Fall time	$t_f$	$I_{B1}= I_{B2}=1mA$			11	ns

\* Pulse test:  $t_p \leq 300 \mu s$ ;  $d \leq 0.02$ .

## ■ Marking

Marking	ZC
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