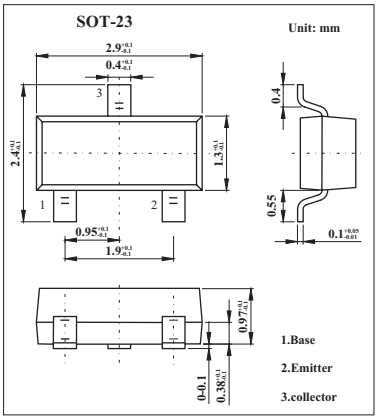
Switching Transistors

FMMT4124



■ Features

- Switching transistors.

■ Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	30	V
Collector-emitter voltage	V_{CEO}	25	V
Emitter-base voltage	V_{EBO}	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	℃

FMMT4124

■ Electrical Characteristics Ta = 25℃

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=10□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□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□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 $V_{BE(off)}$=0.5V			24	ns
Rise time	t_r				13	ns
Storage time	t_s	V_{CC}=3V, I_C=10mA I_{B1}= I_{B2}=1mA			125	ns
Fall time	t_f				11	ns

* Pulse test: tp ⩽ 300 μs; d ⩽ 0.02.

■ Marking

Marking	ZC