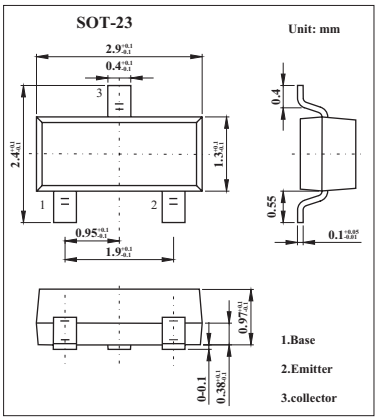
Small Signal Transistor

FMMT5088



■ Features

● Small signal transistor.

■ Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	35	V
Collector-emitter voltage	V_{CEO}	30	V
Emitter-base voltage	V_{EBO}	4.5	V
Collector current	I_C	50	mA
Power dissipation	P_{tot}	330	mW
Operating and storage temperature range	T_j,T_{stg}	-55 to +150	℃

■ Electrical Characteristics Ta = 25℃

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=1mA, I_B=0	35			V
Collector-emitter breakdown voltage *	$V_{(BR)CEO}$	I_C=100mA,I_E=0*	30			V
Collector-base cut-off current	I_{CBO}	V_{CB}=20V, I_E=0			50	nA
Emitter-base current	I_{EBO}	$V_{EB(off)}$=3V, I_C=0			50	nA
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=10mA, I_B=1mA			0.5	V
Base-emitter saturation voltage	$V_{BE(sat)}$	I_C=10mA, I_B=1mA			0.8	V
DC current gain	h_{FE}	I_C=100μA, V_{CE}=5V	300		900	
Current-gain-bandwidth product	f_T	I_C=500mA, V_{CE}=5V f=20MHz	50			MHz
Output capacitance	C_{obo}	V_{CB}=5V, f=1MHz, I_E=0			4	pF
Emitter-base capacitance	C_{ebo}	V_{BE}=0.5V, f=1MHz, I_C=0			10	pF
Noise figure	NF	I_C=200mA, V_{CE}=5V, R_g=10KΩ, f=10Hz to 15KHz			3	dB
Small signal current transfer ratio	hfe	I_C=1mA, V_{CE}=5V f=1KHz	350		1400	ns

* Pulse test: tp ⩽ 300 μs; d ⩽ 0.02.

■ Marking

Marking	1Q