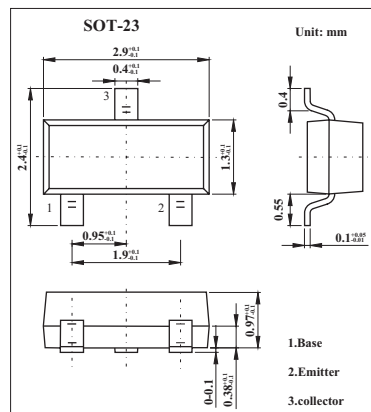


# FMMT5209

■ Features

- Small signal transistor.



■ Absolute Maximum Ratings Ta = 25°C

Parameter	Symbol	Rating	Unit
Collector-base voltage	V <sub>CB0</sub>	50	V
Collector-emitter voltage	V <sub>CEO</sub>	50	V
Emitter-base voltage	V <sub>EB0</sub>	4.5	V
Collector current	I <sub>C</sub>	50	mA
Power dissipation	P <sub>tot</sub>	330	mW
Operating and storage temperature range	T <sub>j</sub> , T <sub>stg</sub>	-55 to +150	°C

■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector-base cut-off current	I <sub>CBO</sub>	V <sub>CB</sub> =35V, I <sub>E</sub> =0			50	nA
Emitter-base current	I <sub>EB0</sub>	V <sub>EB</sub> =3V, I <sub>C</sub> =0			50	nA
Collector-emitter saturation voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> =10mA, I <sub>B</sub> =1mA			700	mV
Base-emitter ON voltage	V <sub>BE(on)</sub>	I <sub>C</sub> =1mA, V <sub>CE</sub> =5V			850	mV
DC current gain	h <sub>FE</sub>	I <sub>C</sub> =100μA, V <sub>CE</sub> =5V	100		300	
Current-gain-bandwidth product	f <sub>T</sub>	I <sub>C</sub> =0.5mA, V <sub>CE</sub> =5V, f=20MHz	30			MHz
Small signal current transfer ratio	h <sub>fe</sub>	I <sub>C</sub> =1mA, V <sub>CE</sub> =5V, f=1KHz	150		600	
Noise figure	NF	I <sub>C</sub> =200μA, V <sub>CE</sub> =5V, R <sub>g</sub> =2KΩ, f=30Hz to 15KHz at -3dB points			3	dB
		I <sub>C</sub> =200μA, V <sub>CE</sub> =5V, R <sub>g</sub> =2KΩ, f=1KHz to Δf=200Hz			4	dB
Output capacitance	C <sub>obo</sub>	V <sub>CB</sub> =5V, I <sub>E</sub> =0, f=140KHz			4	pF

■ Marking

Marking	2Q
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