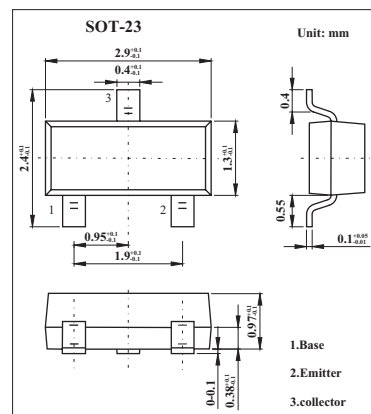


Switching Transistors

FMMT3903

■ Features

- Switching transistors

■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CB0}	60	V
Collector-emitter voltage	V_{CE0}	40	V
Emitter-base voltage	V_{EB0}	6	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	$^\circ\text{C}$

FMMT3903

■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	V(BR)CBO	IC=10μA	60			V
Collector-emitter breakdown voltage	V(BR)CEO	IC=1mA	40			V
Emitter-base breakdown voltage	V(BR)EBO	IE=10μA	6			V
Collector cutoff current	ICEX	VCE=30V, VBE(off) =3V			50	nA
Emitter cut-off current	IBEX	VCE=30V, VEB(off) =3V			50	nA
DC current gain *	hFE	IC=10mA, VCE=1V	50		150	
Collector-emitter saturation voltage *	VCE(sat)	IC=10mA, IB=1mA IC=50mA, IB=5mA			0.2 0.3	V
Base-emitter saturation voltage *	VBE(sat)	IC=10mA, IB=1mA IC=50mA, IB=5mA		0.65	0.85 0.95	V
Current-gain-bandwidth product	fT	IC=10mA, VCE=20V f=100MHz	250			MHz
Output capacitance	Cobo	VCB=5V, IE=0, f=100KHz			4	pF
Input capacitance	Cibo	VBE=0.5V, IC=0, f=100KHz			8	pF
Noise figure	NF	VCE=5V IC=200μA, Rg=2KΩ f=30Hz to 15KHz at-3dB points			6	dB
Delay time	td	VCC=3V, IC=10mA, IB1=1mA VBE(off)=0.5V			35	ns
Rise time	tr				35	ns
Storage time	ts	VCC=3V, IC=10mA			175	ns
Fall time	tf	IB1= IB2=1mA			50	ns

* Pulse test: tp ≤ 300μs; d ≤ 0.02.

■ Marking

Marking	1W
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