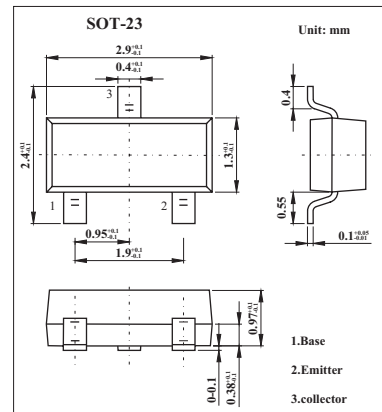


## Switching Transistor

## FM717

## ■ Features

- 625mW power dissipation.
- $I_C$  CONT 2.5A.
- $I_C$  up to 10A peak pulse current.
- Excellent hfe characteristics up to 10A (pulsed).
- Extremely low saturation voltage e.g. 10mV typ..
- Exhibits extremely low equivalent on-resistance;  $R_{CE(sat)}$ .

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

Parameter	Symbol	Rating	Unit
Collector-base voltage	$V_{CBO}$	-12	V
Collector-emitter voltage	$V_{CEO}$	-12	V
Emitter-base voltage	$V_{EBO}$	-5	V
Peak collector current	$I_{CM}$	-10	A
Collector current	$I_C$	-2.5	A
Base current	$I_B$	-500	mA
Power dissipation	$P_{tot}$	625	mW
Operating and storage temperature range	$T_j, T_{stg}$	-55 to +150	$^\circ\text{C}$

## FMMT717

## ■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	V(BR)CBO	IC=-100μA	-12	-35		V
Collector-emitter breakdown voltage *	V(BR)CEO	IC=-10mA	-12	-25		V
Emitter-base breakdown voltage	V(BR)EBO	IE=-100μA	-5	-8.5		V
Collector cutoff current	ICBO	VCE=-10V			-100	nA
Emitter cut-off current	IEBO	VEB=-4V			-100	nA
Collector-emitter saturation voltage *	VCE(sat)	IC=0.1A, IB=-10mA IC=-1A, IB=-10mA IC=-1.5A, IB=-50mA IC=-2.5A, IB=-50mA		-10 -100 -110 -180	-17 -140 -170 -220	mV
Base-emitter saturation voltage *	VBE(sat)	IC=-2.5A, IB=-50mA		-0.9	-1	V
Base-emitter voltage *	VBE(ON)	IC=-2.5A, VCE=-2V		-0.8	-1	V
DC current gain *	hFE	IC=-10mA, VCE=-2V IC=-100mA, VCE=-2V IC=-2.5A, VCE=-2V IC=-8A, VCE=-2V IC=-10A, VCE=-2V	300 300 180 60 45	475 450 275 100 70		
Current-gain-bandwidth product	fT	IC=-50mA, VCE=-10V, f=100MHz	80	110		MHz
Output capacitance	Cobo	VCE=-10V, f=1MHz		21	30	pF
Turn-on time	t(on)	VCC=-6V, IC=-2A		70		ns
Turn-off time	t(off)	IB1=-IB2=50mA		130		ns

\* Pulse test: tp ≤ 300 μs; d ≤ 0.02.

## ■ Marking

Marking	717
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