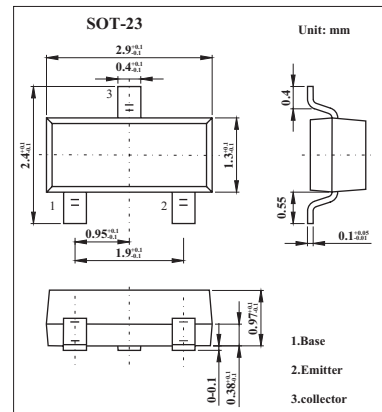


## Switching Transistor

## 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	I <sub>C</sub> =-100μA	-12	-35		V
Collector-emitter breakdown voltage *	V(BR)CEO	I <sub>C</sub> =-10mA	-12	-25		V
Emitter-base breakdown voltage	V(BR)EBO	I <sub>E</sub> =-100μA	-5	-8.5		V
Collector cutoff current	I <sub>CBO</sub>	V <sub>CB</sub> =-10V			-100	nA
Emitter cut-off current	I <sub>EBO</sub>	V <sub>EB</sub> =-4V			-100	nA
Collector-emitter saturation voltage *	V <sub>CE(sat)</sub>	I <sub>C</sub> =-0.1A, I <sub>B</sub> =-10mA I <sub>C</sub> =-1A, I <sub>B</sub> =-10mA I <sub>C</sub> =-1.5A, I <sub>B</sub> =-50mA I <sub>C</sub> =-2.5A, I <sub>B</sub> =-50mA		-10 -100 -110 -180	-17 -140 -170 -220	mV
Base-emitter saturation voltage *	V <sub>BE(sat)</sub>	I <sub>C</sub> =-2.5A, I <sub>B</sub> =-50mA		-0.9	-1	V
Base-emitter voltage *	V <sub>BE(ON)</sub>	I <sub>C</sub> =-2.5A, V <sub>CE</sub> =-2V		-0.8	-1	V
DC current gain *	h <sub>FE</sub>	I <sub>C</sub> =-10mA, V <sub>CE</sub> =-2V I <sub>C</sub> =-100mA, V <sub>CE</sub> =-2V I <sub>C</sub> =-2.5A, V <sub>CE</sub> =-2V I <sub>C</sub> =-8A, V <sub>CE</sub> =-2V I <sub>C</sub> =-10A, V <sub>CE</sub> =-2V	300 300 180 60 45	475 450 275 100 70		
Current-gain-bandwidth product	f <sub>T</sub>	I <sub>C</sub> =-50mA, V <sub>CE</sub> =-10V, f=100MHz	80	110		MHz
Output capacitance	C <sub>obo</sub>	V <sub>CB</sub> =-10V, f=1MHz		21	30	pF
Turn-on time	t <sub>(on)</sub>	V <sub>CC</sub> =-6V, I <sub>C</sub> =-2A		70		ns
Turn-off time	t <sub>(off)</sub>	I <sub>B1</sub> =-I <sub>B2</sub> =50mA		130		ns

\* Pulse test: t<sub>p</sub> ≤ 300 μs; d ≤ 0.02.

## ■ Marking

Marking	717
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