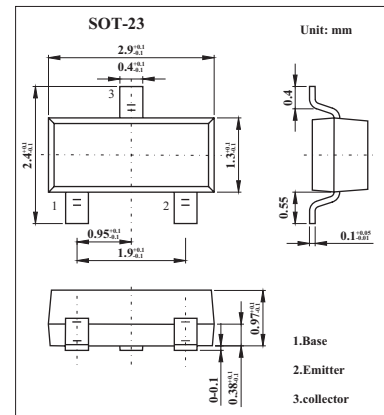


Switching Transistor

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

* Pulse test: t_p ≤ 300 μs; d ≤ 0.02.

■ Marking

Marking	717
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