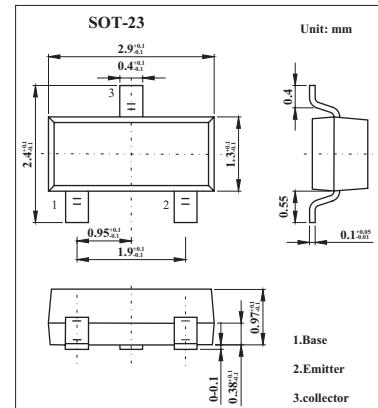


Switching Transistor

FMMT718

■ Features

- 625mW power dissipation.
- Ic CONT 2.5A.
- Ic 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 Ta = 25°C

Parameter	Symbol	Rating	Unit
Collector-base voltage	V _{CB0}	-20	V
Collector-emitter voltage	V _{CBO}	-20	V
Emitter-base voltage	V _{EBO}	-5	V
Peak collector current	I _{CM}	-6	A
Collector current	I _C	-1.5	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	°C

FMMT718■ Electrical Characteristics $T_a = 25^\circ\text{C}$

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=-100\mu\text{A}$	-20	-65		V
Collector-emitter breakdown voltage *	$V_{(BR)CEO}$	$I_C=-10\text{mA}$	-20	-55		V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=-100\mu\text{A}$	-5	-8.8		V
Collector cutoff current	I_{CBO}	$V_{CB}=-15\text{V}$			-100	nA
Emitter cut-off current	I_{EBO}	$V_{EB}=-4\text{V}$			-100	nA
Collector-emitter saturation voltage *	$V_{CE(\text{sat})}$	$I_C=-0.1\text{A}, I_B=-10\text{mA}$ $I_C=-1\text{A}, I_B=-10\text{mA}$ $I_C=-1.5\text{A}, I_B=-50\text{mA}$		-16 -130 -145	-40 -200 -220	mV
Base-emitter saturation voltage *	$V_{BE(\text{sat})}$	$I_C=-1.5\text{A}, I_B=-50\text{mA}$		-0.87	-1	V
Base-emitter voltage *	$V_{BE(\text{ON})}$	$I_C=-2\text{A}, V_{CE}=-2\text{V}$		-0.81	-1	V
DC current gain *	h_{FE}	$I_C=-10\text{mA}, V_{CE}=-2\text{V}$ $I_C=-0.1\text{A}, V_{CE}=-2\text{V}$ $I_C=-2\text{A}, V_{CE}=-2\text{V}$ $I_C=-4\text{A}, V_{CE}=-2\text{V}$ $I_C=-6\text{A}, V_{CE}=-2\text{V}$	300 300 150 35 15	475 450 230 70 30		
Current-gain-bandwidth product	f_T	$I_C=-50\text{mA}, V_{CE}=-10\text{V}, f=100\text{MHz}$	150	180		MHz
Output capacitance	C_{obo}	$V_{CB}=-10\text{V}, f=1\text{MHz}$		21	30	pF
Turn-on time	$t_{(\text{on})}$	$V_{CC}=-10\text{V}, I_C=-1\text{A}$		40		ns
Turn-off time	$t_{(\text{off})}$	$I_{B1}=I_{B2}=-20\text{mA}$		670		ns

* Pulse test: $t_p \leq 300 \mu\text{s}$; $d \leq 0.02$.

■ Marking

Marking	718
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