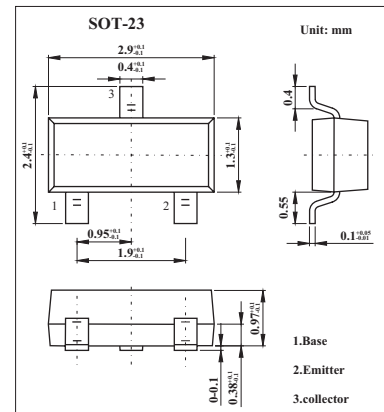


Switching Transistor

FMMT718

■ Features

- 625mW power dissipation.
- I_C CONT 2.5A.
- I_C up to 10A peak pulse current.
- Excellent h_{fe} 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}	-20	V
Collector-emitter voltage	V_{CEO}	-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	$^\circ\text{C}$

FMMT718

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

Parameter	Symbol	Testconditions	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 *	$V_{CE(sat)}$	$I_C = -0.1\text{A}, I_B = -10\text{mA}$ $I_C = -1\text{A}, I_B = -10\text{mA}$ $I_C = -1.5\text{A}, I_B = -50\text{mA}$		-16 -130 -145	-40 -200 -220	mV
Base-emitter saturation voltage *	$V_{BE(sat)}$	$I_C = -1.5\text{A}, I_B = -50\text{mA}$		-0.87	-1	V
Base-emitter voltage *	$V_{BE(ON)}$	$I_C = -2\text{A}, V_{CE} = -2\text{V}$		-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	$t_{(on)}$	$V_{CC} = -10\text{V}, I_C = -1\text{A}$		40		ns
Turn-off time	$t_{(off)}$	$I_{B1} = -I_{B2} = -20\text{mA}$		670		ns

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

■ Marking

Marking	718
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