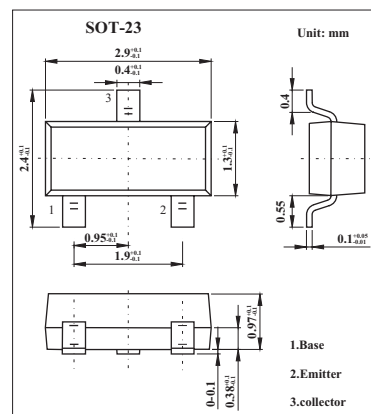


High Performance Transistor

FMMT451

■ Features

- Low equivalent on-resistance.
- 1 Amp continuous current.
- $P_{tot} = 500\text{mW}$.

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

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	80	V
Collector-emitter voltage	V_{CEO}	60	V
Emitter-base voltage	V_{EBO}	5	V
Peak collector current	I_{CM}	2	A
Collector current	I_C	1	A
Base current	I_B	200	mA
Power dissipation	P_{tot}	500	mW
Operating and storage temperature range	T_j, T_{stg}	-55 to +150	$^\circ\text{C}$

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

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = 100\mu\text{A}$	80			V
Collector-emitter breakdown voltage *	$V_{(BR)CEO}$	$I_C = 10\text{mA}$	60			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = 100\mu\text{A}$	5			V
Collector cutoff current	I_{CBO}	$V_{CB} = 60\text{V}$			0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = 4\text{V}$			0.1	μA
Collector-emitter saturation voltage *	$V_{CE(sat)}$	$I_C = 150\text{mA}, I_B = 15\text{mA}$			0.35	V
Base-emitter saturation voltage *	$V_{BE(sat)}$	$I_C = 150\text{mA}, I_B = 15\text{mA}$			1.1	V
Static Forward Current Transfer Ratio *	h_{FE}	$I_C = 1\text{A}, V_{CE} = 10\text{V}$	10			
		$I_C = 150\text{mA}, V_{CE} = 10\text{V}$	50		150	
Current-gain-bandwidth product	f_T	$I_C = 50\text{mA}, V_{CE} = 10\text{V}, f = 100\text{MHz}$	150			MHz
Output capacitance	C_{obo}	$V_{CB} = 10\text{V}, f = 1\text{MHz}$			15	pF

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

■ Marking

Marking	451
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