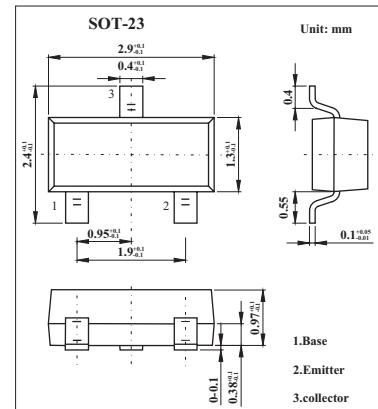


## High Performance Transistor

# FMMT451

### ■ Features

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



### ■ Absolute Maximum Ratings Ta = 25°C

Parameter	Symbol	Rating	Unit
Collector-base voltage	V <sub>CBO</sub>	80	V
Collector-emitter voltage	V <sub>CEO</sub>	60	V
Emitter-base voltage	V <sub>EBO</sub>	5	V
Peak collector current	I <sub>CM</sub>	2	A
Collector current	I <sub>C</sub>	1	A
Base current	I <sub>B</sub>	200	mA
Power dissipation	P <sub>tot</sub>	500	mW
Operating and storage temperature range	T <sub>j</sub> , T <sub>stg</sub>	-55 to +150	°C

### ■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Collector-base breakdown voltage	V <sub>(BR)CBO</sub>	I <sub>C</sub> =100µA	80			V
Collector-emitter breakdown voltage *	V <sub>(BR)CEO</sub>	I <sub>C</sub> =10mA	60			V
Emitter-base breakdown voltage	V <sub>(BR)EBO</sub>	I <sub>E</sub> =100µA	5			V
Collector cutoff current	I <sub>CBO</sub>	V <sub>CB</sub> =60V			0.1	µA
Emitter cut-off current	I <sub>EBO</sub>	V <sub>EB</sub> =4V			0.1	µA
Collector-emitter saturation voltage *	V <sub>CE(sat)</sub>	I <sub>C</sub> =150mA, I <sub>B</sub> =15mA			0.35	V
Base-emitter saturation voltage *	V <sub>BE(sat)</sub>	I <sub>C</sub> =150mA, I <sub>B</sub> =15mA			1.1	V
Static Forward Current Transfer Ratio *	h <sub>FE</sub>	I <sub>C</sub> =1A, V <sub>CE</sub> =10V	10			
		I <sub>C</sub> =150mA, V <sub>CE</sub> =10V	50		150	
Current-gain-bandwidth product	f <sub>T</sub>	I <sub>C</sub> =50mA, V <sub>CE</sub> =10V, f=100MHz	150			MHz
Output capacitance	C <sub>obo</sub>	V <sub>CB</sub> =10V, f=1MHz			15	pF

\* Pulse test: tp ≤ 300 µs; d ≤ 0.02.

### ■ Marking

Marking	451
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