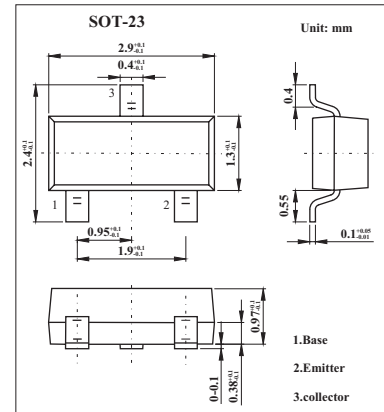


## Power High Performance Transistor

## FMMT495

## ■ Features

- SOT23 NPN silicon planar medium

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

Parameter	Symbol	Rating	Unit
Collector-base voltage	$V_{CB0}$	170	V
Collector-emitter voltage	$V_{CE0}$	150	V
Emitter-base voltage	$V_{EB0}$	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	$^\circ\text{C}$

## FMMT495

## ■ 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	170			V
Collector-emitter breakdown voltage *	V <sub>(BR)CEO</sub>	I <sub>C</sub> =10mA	150			V
Emitter-base breakdown voltage	V <sub>(BR)EBO</sub>	I <sub>E</sub> =100μA	5			V
Collector Cut-Off Currents	I <sub>CBO</sub>	V <sub>CB</sub> =150V			100	nA
Collector Cut-Off Currents	I <sub>CES</sub>	V <sub>CE</sub> =150V			100	nA
Emitter cut-off current	I <sub>EBO</sub>	V <sub>EB</sub> =4V			100	nA
Collector-emitter saturation voltage *	V <sub>CE(sat)</sub>	I <sub>C</sub> =250mA, I <sub>B</sub> =25mA I <sub>C</sub> =500mA, I <sub>B</sub> =50mA			0.2 0.3	V
Base-emitter saturation voltage *	V <sub>BE(sat)</sub>	I <sub>C</sub> =500mA, I <sub>B</sub> =50mA			1.0	V
Base-emitter voltage *	V <sub>BE(ON)</sub>	I <sub>C</sub> =500mA, V <sub>CE</sub> =10V			1.0	V
Static Forward Current Transfer Ratio	h <sub>FE</sub>	I <sub>C</sub> =1mA, V <sub>CE</sub> =10V	100			
		I <sub>C</sub> =250mA, V <sub>CE</sub> =10V*	100		300	
		I <sub>C</sub> =500mA, V <sub>CE</sub> =10V*	50			
		I <sub>C</sub> =1A, V <sub>CE</sub> =10V*	10			
Transition Frequency	f <sub>T</sub>	I <sub>C</sub> =50mA, V <sub>CE</sub> =10V, f=100MHz	100			MHz
Collector-Base Breakdown Voltage	C <sub>obo</sub>	V <sub>CB</sub> =10V, f=1MHz			10	pF

\* Pulse test: t<sub>p</sub> = 300 μs; d ≤ 0.02.

## ■ Marking

Marking	495
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