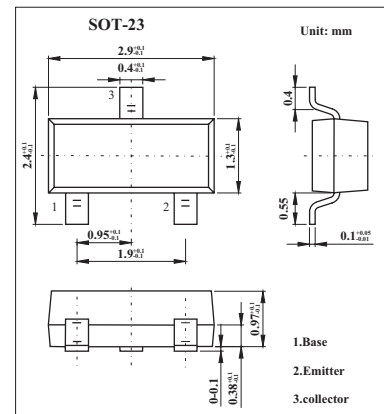


## Medium Power Transistor

## FMMT491A

## ■ Features

- Very Low Equivalent Resistance,
- SOT23 NPN Rsilicon planar

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

Parameter	Symbol	Rating	Unit
Collector-base voltage	$V_{CBO}$	40	V
Collector-emitter voltage	$V_{CEO}$	40	V
Emitter-base voltage	$V_{EBO}$	5	V
Peak collector current	$I_{CM}$	1	A
Collector current	$I_C$	2	A
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	Testconditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=100\mu\text{A}$	40			V
Collector-emitter breakdown voltage *	$V_{(BR)CEO}$	$I_C=10\text{mA}$	40			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=100\mu\text{A}$	5			V
Collector cutoff current	$I_{CBO}$	$V_{CB}=30\text{V}, V_{CES}=30\text{V}$			100	nA
Emitter cut-off current	$I_{EBO}$	$V_{EB}=4\text{V}$			100	nA
Collector-emitter saturation voltage *	$V_{CE(sat)}$	$I_C=500\text{mA}, I_B=50\text{mA}$ $I_C=1\text{A}, I_B=100\text{mA}$			0.3 0.50	V
Base-emitter saturation voltage *	$V_{BE(sat)}$	$I_C=1\text{A}, I_B=100\text{mA}$			1.1	V
Base-emitter voltage *	$V_{BE(ON)}$	$I_C=1\text{A}, V_{CE}=5\text{V}$			1.0	V
Static Forward Current Transfer Ratio *	$h_{FE}$	$I_C=1\text{mA}, V_{CE}=5\text{V}$	300			
		$I_C=500\text{mA}, V_{CE}=5\text{V}$	300		900	
		$I_C=1\text{A}, V_{CE}=5\text{V}$	200			
		$I_C=2\text{A}, V_{CE}=5\text{V}$	35			
Current-gain-bandwidth product	$f_T$	$I_C=50\text{mA}, V_{CE}=10\text{V}, f=100\text{MHz}$	150			MHz
Output capacitance	$C_{obo}$	$V_{CB}=10\text{V}, f=1\text{MHz}$			10	pF

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

## ■ Marking

Marking	41A
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