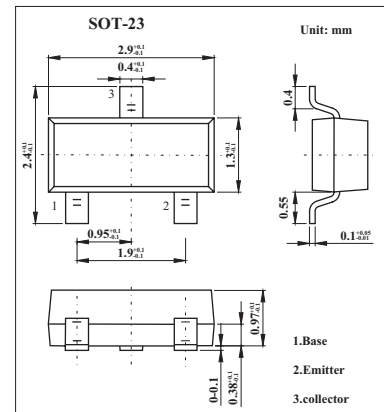


## Medium Power Transistor

### FMMT549A

#### ■ Features

- Low equivalent on-resistance.



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

Parameter	Symbol	Rating	Unit
Collector-base voltage	$V_{CB0}$	-35	V
Collector-emitter voltage	$V_{CE0}$	-30	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	$^\circ\text{C}$

## FMMT549A

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

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = -100\mu\text{A}$	-35			V
Collector-emitter breakdown voltage *	$V_{(BR)CEO}$	$I_C = -10\text{mA}$	-30			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = -100\mu\text{A}$	-5			V
Collector cutoff current	$I_{CBO}$	$V_{CB} = -30\text{V}$			-0.1	$\mu\text{A}$
Emitter cut-off current	$I_{EBO}$	$V_{EB} = -4\text{V}$			-0.1	$\mu\text{A}$
Collector-emitter saturation voltage *	$V_{CE(sat)}$	$I_C = -100\text{mA}, I_B = -1\text{A}$			-0.3	V
Base-emitter saturation voltage *	$V_{BE(sat)}$	$I_C = -1\text{A}, I_B = -100\text{mA}$		-0.9	-1.25	V
Base-emitter voltage *	$V_{BE(ON)}$	$I_C = -1\text{A}, V_{CE} = -2\text{V}$		-0.85	-1	V
DC current gain *	hFE	$I_C = -50\text{mA}, V_{CE} = -2\text{V}$	70	200		
		$I_C = -1\text{A}, V_{CE} = -2\text{V}$	80	130		
		$I_C = -2\text{A}, V_{CE} = -2\text{V}$	40	80		
		$I_C = -500\text{mA}, V_{CE} = -2\text{V}$	150	200	500	
Current-gain-bandwidth product	$f_T$	$I_C = -100\text{mA}, V_{CE} = -5\text{V}, f = 100\text{MHz}$	100			MHz
Output capacitance	$C_{obo}$	$V_{CB} = -10\text{V}, f = 1\text{MHz}$			25	pF
Switching times	$t_{on}$	$V_{CB} = -10\text{V}, f = 1\text{MHz}$		50		ns
	$t_{off}$	$I_C = -500\text{mA}, V_{CC} = -10\text{V}, I_{B1} = I_{B2} = -50\text{mA}$		300		ns

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

## ■ Marking

Marking	59A
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