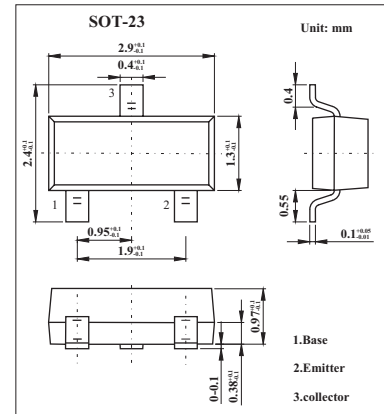


Medium Power Transistor

FMMT494

■ Features

- SOT23 NPN Silicon Planar



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

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CB0}	140	V
Collector-emitter voltage	V_{CE0}	120	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	$^\circ\text{C}$

FMMT494

■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	V(BR)CBO	IC=100μA	140			V
Collector-emitter breakdown voltage *	V(BR)CEO	IC=10mA	120			V
Emitter-base breakdown voltage	V(BR)EBO	IE=100μA	5			V
Collector cutoff current	ICBO	VCE=120V			100	nA
Collector Cut-Off Currents	ICES	VCE=120V			100	nA
Emitter cut-off current	IEBO	VEB=4V			100	nA
Collector-emitter saturation voltage *	VCE(sat)	IC=250mA, IB=25mA IC=500mA, IB=50mA			0.2 0.3	V
Base-emitter saturation voltage *	VBE(sat)	IC=500mA, IB=50mA			1.1	V
Base-emitter voltage *	VBE(ON)	IC=500mA, VCE=10V			1.0	V
Static Forward Current Transfer Ratio	hFE	IC=1mA, VCE=10V*	100			
		IC=250mA, VCE=10V*	100		300	
		IC=500mA, VCE=10V*	60			
		IC=1A, VCE=10V*	20			
Transition Frequency	fT	IC=50mA, VCE=10V, f=100MHz	100			MHz
Collector-Base Breakdown Voltage	Cobo	VCE=10V, f=1MHz			10	pF

* Pulse test: tp = 300 μs; d ≤ 0.02.

■ Marking

Marking	494
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