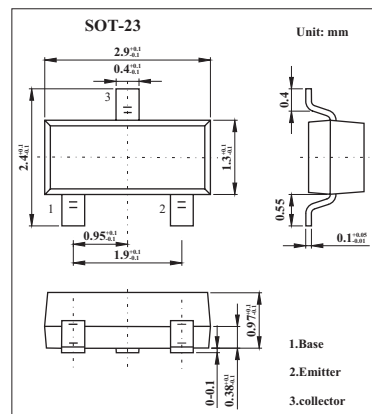


MMBT5550

■ Features

- NPN Silicon



■ Absolute Maximum Ratings Ta = 25°C

Parameter	Symbol	Rating	Unit
Collector-emitter voltage	V _{CEO}	140	V
Collector-base voltage	V _{CBO}	160	V
Emitter-base voltage	V _{EBO}	6	V
Collector current -continuous	I _C	600	mA
Total device dissipation FR-5 board *1			
@TA = 25°C	P _D	225	mW
Derate above 25°C		1.8	mW/°C
Thermal resistance, junction-to-ambient	R _{θJA}	556	°C/W
Total device dissipation alumina substrate *2			
@TA = 25°C	P _D	300	mW
derate above 25°C		2.4	mW/°C
Thermal resistance, junction-to-ambient	R _{θJA}	417	°C/W
Junction and storage temperature	T _J , T _{stg}	-55 to +150	°C

* 1. FR-5 = 1.0 X 0.75 X 0.062 in.

* 2. Alumina = 0.4 X 0.3 X 0.024 in. 99.5% alumina.

■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Collector?emitter breakdown voltage *	V(BR)CEO	Ic = 1.0 mA, Ib = 0	140			V
Collector?base breakdown voltage	V(BR)CBO	Ic = 100 µA, Ie = 0	160			V
Emitter ?base breakdown voltage	V(BR)EBO	Ie = 10 µA, Ic = 0	6			V
Collector cutoff current	ICBO	V _{CB} = 100 V, Ie = 0			100	nA
		V _{CB} = 100 V, Ie = 0, Ta = 100°C			100	µA
Emitter cutoff current	IEBO	VEB = 4.0 V, Ic = 0			50	nA
DC current gain	hFE	Ic = 1.0 mA, VCE = 5 V	60			
		Ic = 10 mA, VCE = 5 V	60		250	
		Ic = 50 mA, VCE = 5 V	20			
Collector-emitter saturation voltage	VCE(sat)	Ic = 10 mA, Ib = 1.0 mA			0.15	V
		Ic = 50 mA, Ib = 5.0 mA			0.25	V
Base-emitter saturation voltage	VBE(sat)	Ic = 10 mA, Ib = 1.0 mA			1.0	V
		Ic = 50 mA, Ib = 5.0 mA			1.2	V
Collector emitter cut-off	ICES	V _{CB} = 10 V			50	nA
		V _{CB} = 75 V			100	nA

* Pulse Test: Pulse Width = 300 µs, Duty Cycle=2.0%.

■ Marking

Marking	M1F
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