



SOT-23 Plastic-Encapsulate Transistors

MMBT5550LT1 TRANSISTOR (NPN)

FEATURES

Power dissipation

$$P_{CM}: 0.225 \text{ W (Tamb=25}^{\circ}\text{C)}$$

Collector current

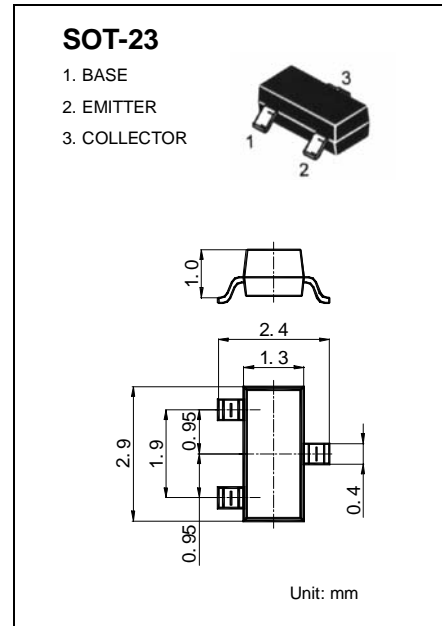
$$I_{CM}: 0.6 \text{ A}$$

Collector-base voltage

$$V_{(BR)CBO}: 160 \text{ V}$$

Operating and storage junction temperature range

$$T_J, T_{stg}: -55^{\circ}\text{C to } +150^{\circ}\text{C}$$



ELECTRICAL CHARACTERISTICS (Tamb=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = 100\mu\text{A}, I_E = 0$	160		V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = 1 \text{ mA}, I_B = 0$	140		V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = 10\mu\text{A}, I_C = 0$	6		V
Collector cut-off current	I_{CBO}	$V_{CB} = 100\text{V}, I_E = 0$		0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = 4\text{V}, I_C = 0$		0.05	μA
DC current gain	$h_{FE(1)}$	$V_{CE} = 5\text{V}, I_C = 1\text{mA}$	60		
	$h_{FE(2)}$	$V_{CE} = 5\text{V}, I_C = 10\text{mA}$	60	250	
	$h_{FE(3)}$	$V_{CE} = 5\text{V}, I_C = 50\text{mA}$	20		
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 10 \text{ mA}, I_B = 1\text{mA}$		0.15	V
		$I_C = 50 \text{ mA}, I_B = 5\text{mA}$		0.25	
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C = 10 \text{ mA}, I_B = 1\text{mA}$		1	V
		$I_C = 50 \text{ mA}, I_B = 5\text{mA}$		1.2	
Transition frequency	f_T	$V_{CE} = 10\text{V}, I_C = 10\text{mA}, f = 100\text{MHz}$	100		MHz
Output capacitance	C_{ob}	$V_{CE} = 10\text{V}, I_E = 0, f = 1\text{MHz}$		6	pF

DEVICE MARKING

MMBT5550LT1=M1F