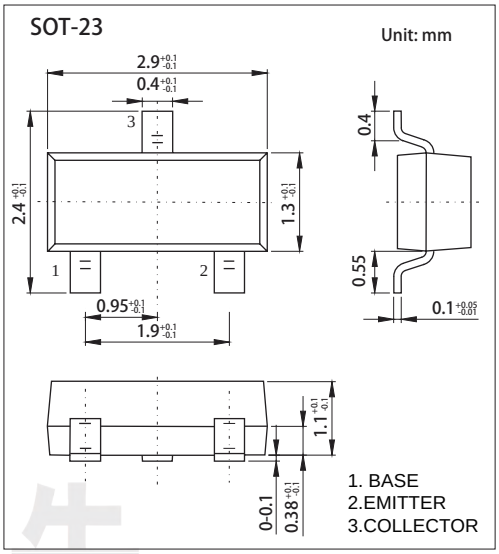
NPN Transistors

MMBT5551



■ Features

- Collector current: I_C=0.6A
- Complementary to MMBT5401

■ Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V_{CBO}	180	V
Collector - Emitter Voltage	V_{CEO}	160	
Emitter - Base Voltage	V_{EBO}	6	
Collector Current - Continuous	I_C	600	mA
Collector Power Dissipation	P_C	300	mW
Thermal Resistance From Junction To Ambient	$R_{\theta JA}$	416	℃/W
Junction Temperature	T_J	150	℃
Storage Temperature	T_{stg}	-55 to 150	

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■ Electrical Characteristics Ta = 25℃

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Collecto- base breakdown voltage	V_{CBO}	I_C= 100 μA， I_E=0	180			V
Collector- emitter breakdown voltage	V_{CEO}	I_C= 1 mA， I_B=0	160			
Emitter - base breakdown voltage	V_{EBO}	I_E= 10 μA， I_C=0	6			
Collector cut-off current	I_{CBO}	V_{CB}= 120 V , I_E=0			0.05	μA
Emitter cut-off current	I_{EBO}	V_{EB}= 4V , I_C=0			0.05	
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=10 mA, I_B= 1mA			0.15	V
		I_C=50 mA, I_B= 5mA			0.2	
Base - emitter saturation voltage	$V_{BE(sat)}$	I_C=10 mA, I_B= 1mA			1	
		I_C=50 mA, I_B= 5mA			1	
DC current gain	$h_{FE(1)}$	V_{CE}= 5V, I_C= 1mA	80			
	$h_{FE(2)}$	V_{CE}= 5V, I_C= 10mA	100		300	
	$h_{FE(3)}$	V_{CE}= 5V, I_C= 50mA	50			
Collector output capacitance	C_{ob}	V_{CB}=10V, I_E=0, f=1MHz			6	pF
Transition frequency	f_T	V_{CE}= 10V, I_C= 10mA,f=100MHz	100		300	MHz

■ Classification of hFE(2)

Rank	L	H
Range	100-200	200-300
Marking	G1	

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■ Typical Characterisitics