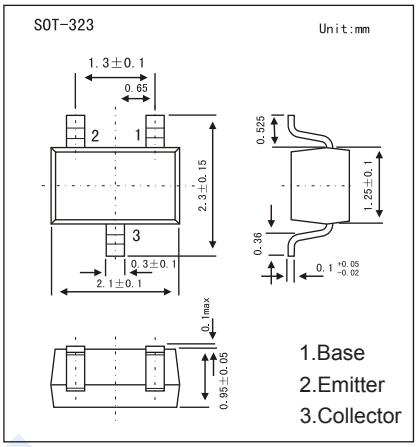
NPN Transistors

MMST5551 (KMST5551)



■ Features

- Small Surface Mount Package
- Ideal for Medium Power Amplification and Switching
- Complementary to MMST5401

■ 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	200	mW
Thermal Resistance From Junction To Ambient	$R_{\Theta JA}$	625	℃/W
Junction Temperature	T_J	150	℃
Storage Temperature Range	T_{stg}	-55 to 150	

■ Electrical Characteristics Ta = 25℃

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- 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 (Note.1)	160			
Emitter - base breakdown voltage	V_{EBO}	I_E= 100 μ A, I_C= 0	6			
Collector-base cut-off current	I_{CBO}	V_{CB}= 120 V , I_E= 0			50	nA
Emitter cut-off current	I_{EBO}	V_{EB}= 4V , I_C=0			50	
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	80		300	
	$h_{FE(3)}$	V_{CE}= 5V, I_C= 50mA	30			
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

Note.1: Pulse test: pulse width ≤300 us,duty cycle≤ 2 %.

■ Marking

Marking	K4N