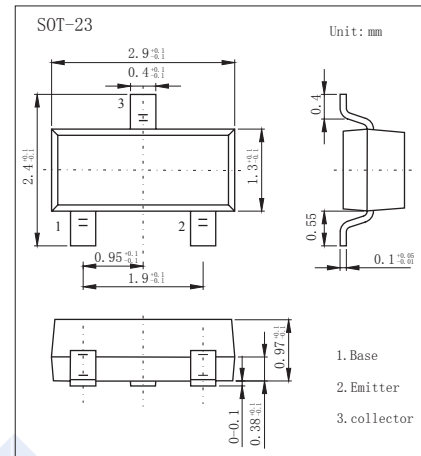


NPN Transistors

MMBT5551 (KMBT5551)

■ Features

- High Voltage Transistors
- Pb-Free Packages are Available



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

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CB0}	180	V
Collector-emitter voltage	V_{CE0}	160	V
Emitter-base voltage	V_{EB0}	6	V
Collector current-continuous	I_C	0.6	A
Collector Power Dissipation	P_C	300	mW
Junction and storage temperature	T_J, T_{stg}	-55 to +150	$^\circ\text{C}$

■ Electrical Characteristics $T_a = 25^\circ\text{C}$

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	V_{CB0}	$I_C = 100\mu\text{A}, I_E = 0$	180			V
Collector-emitter breakdown voltage *	V_{CE0}	$I_C = 1.0\text{ mA}, I_B = 0$	160			V
Emitter-base breakdown voltage	V_{EB0}	$I_E = 10\mu\text{A}, I_C = 0$	6			V
Collector cutoff current	I_{CB0}	$V_{CB} = 120\text{ V}, I_E = 0$			50	nA
Emitter cutoff current	I_{EB0}	$V_{EB} = 4.0\text{ V}, I_C = 0$			50	nA
DC current gain *	h_{FE}	$I_C = 1.0\text{ mA}, V_{CE} = 5\text{ V}$	80			
		$I_C = 10\text{ mA}, V_{CE} = 5\text{ V}$	100		300	
		$I_C = 50\text{ mA}, V_{CE} = 5\text{ V}$	50			
Collector-emitter saturation voltage *	$V_{CE(sat)}$	$I_C = 50\text{ mA}, I_B = 5.0\text{ mA}$			0.5	V
Base-emitter saturation voltage *	$V_{BE(sat)}$	$I_C = 50\text{ mA}, I_B = 5.0\text{ mA}$			1.0	V
Transistor frequency	f_T	$V_{CE}=10\text{V}, I_C=10\text{mA}, f=100\text{MHz}$	100			MHz

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

■ Classification of $h_{FE}(2)$

Type	MMBT5551	MMBT5551-L	MMBT5551-H
Range	100-300	100-200	200-300
Marking	G1		

MMBT5551 (KMBT5551)

Typical Characteristics

