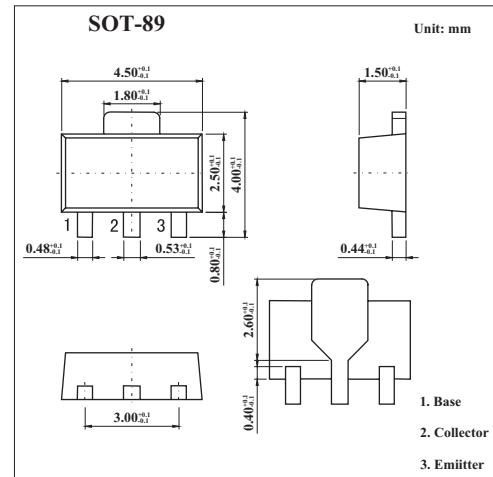


Surface Mount NPN Silicon Transistor

KXT5551 (CXT5551)

■ Features

- High current (max. 500mA).
- Low voltage (max. 150 V).



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

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CB0}	180	V
Collector-emitter voltage	V_{CEO}	160	V
Emitter-base voltage	V_{EBO}	6	V
Collector current (DC)	I_C	600	mA
power dissipation	P_D	1.2	W
thermal resistance Junction-to-ambient	$R_{\theta JA}$	104	$^\circ\text{C}/\text{W}$
Junction temperature	T_j	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-65 to +150	$^\circ\text{C}$

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

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector to base breakdown voltage	V_{CB0}	$I_C=100 \mu\text{A}$	180			V
Collector to emitter breakdown voltage	V_{CEO}	$I_C=1.0\text{mA}$	160			V
Emitter to base breakdown voltage	V_{EBO}	$I_E=10 \mu\text{A}$	6.0			V
Collector cutoff current	I_{CBO}	$V_{CB} = 120 \text{ V}, I_E = 0$			50	nA
		$V_{CB} = 120 \text{ V}, T_A=100^\circ\text{C}$			50	μA
DC current gain	h_{FE}	$I_C = 1.0 \text{ mA}; V_{CE} = 5.0 \text{ V}$	80			
		$I_C = 10\text{mA}; V_{CE} = 5.0\text{V}$	80		250	
		$I_C = 50 \text{ mA}; V_{CE} = 5.0\text{V}$	30			
Collector to emitter saturation voltage	$V_{CE(sat)}$	$I_C = 10 \text{ mA}; I_B = 1.0\text{mA}$			0.15	V
		$I_C = 50 \text{ mA}; I_B = 5.0\text{mA}$			0.20	V
Base to emitter saturation voltage	$V_{BE(sat)}$	$I_C = 10 \text{ mA}; I_B = 1.0\text{mA}$			1.00	V
		$I_C = 50 \text{ mA}; I_B = 5.0\text{mA}$			1.00	V
Output capacitance	C_{ob}	$V_{CB} = 10 \text{ V}, I_E = 0, f=1.0\text{MHz}$			6.0	pF
Transition frequency	f_T	$I_C = 10 \text{ mA}; V_{CE} = 10\text{V}; f = 100 \text{ MHz}$	100		300	MHz