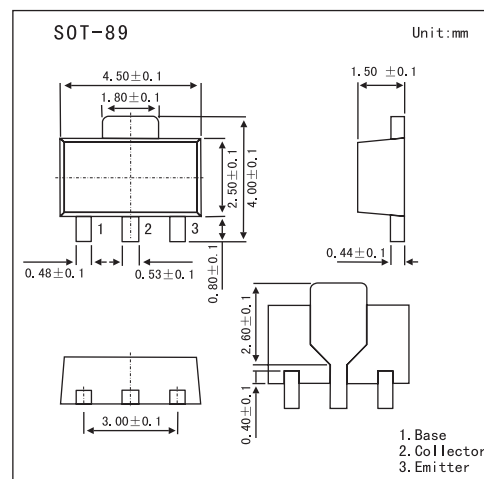


NPN Switching Transistor

PXT2222A

■ Features

- High current (max. 600 mA)
- Low voltage (max. 40 V).

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

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CB0}	60	V
Collector-emitter voltage	V_{CE0}	40	V
Emitter-base voltage	V_{EB0}	6	V
Collector current	I_C	100	mA
Peak collector current	I_{CM}	200	mA
Peak base current	I_{BM}	100	mA
Total power dissipation	P_{tot}		
	* 1	0.5	W
	* 2	0.8	
	* 3	1.1	
Storage temperature	T_{stg}	-65 to +150	$^\circ\text{C}$
Junction temperature	T_j	150	$^\circ\text{C}$
Operating ambient temperature	R_{amb}	-65 to +150	$^\circ\text{C}$
Thermal resistance from junction to ambient	$R_{th(j-a)}$		
	* 1	250	K/W
	* 2	156	
	* 3	113	
Thermal resistance from junction to soldering point	$R_{th(j-s)}$	30	K/W

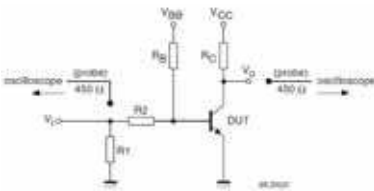
*1 Device mounted on a printed-circuit board, single-sided copper, tin-plated and standard - footprint.

*2 Device mounted on a printed-circuit board, single-sided copper, tin-plated and mounting pad for collector 1 cm^2 .

*3 Device mounted on a printed-circuit board, single-sided copper, tin-plated and mounting - pad for collector 6 cm^2 .

PXT2222A

■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector cutoff current	ICBO	IE = 0; VCB = 60 V			10	nA
		IE = 0; VCB = 60 V; Tj = 125 °C			10	μA
Emitter cutoff current	IEBO	IC = 0; VEB = 5 V			10	nA
DC current gain	hFE	IC = 0.1 mA; VCE = 10V	35			
		IC = 1 mA; VCE = 10 V	50			
		IC = 10 mA; VCE = 10 V	75			
		IC = 10 mA; VC = 10 V; Tj = -55 °C	35			
		IC = 150 mA; VCE = 1 V	50			
		VCE = 10 V, IC = 150 mA	100		300	
		IC = 500 mA; VCE = 10 V	40			
collector-emitter saturation voltage	VCEsat	IC = 150 mA; IB = 15 mA			300	mV
		IC = 500 mA; IB = 50 mA			1	V
base-emitter saturation voltage	VBEsat	IC = 150 mA; IB = 15 mA	0.6		1.2	V
		IC = 500 mA; IB = 50 mA			2	V
Collector capacitance	Cc	IE = iE = 0; VCB = 10 V; f = 1 MHz			8	pF
Emitter capacitance	Ce	IC = iC = 0; VEB = 500 mV; f = 1 MHz			25	pF
Transition frequency	fT	IC = 20 mA; VCE = 10 V; f = 100 MHz	300			MHz
Noise figure	F	IC = 200 μA; VCE = 5 V; RS = 2 kΩ; f = 1 kHz; B = 200 Hz			4	dB
Turn-on time	ton	ICon = 150 mA; IBon = 15 mA; IBoff = -15 mA			35	ns
Delay time	td				15	ns
Rise time	tr				20	ns
Turn-off time	toff				250	ns
Storage time	ts				200	ns
Fall time	tf				60	ns

■ Marking

Marking	1P
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