

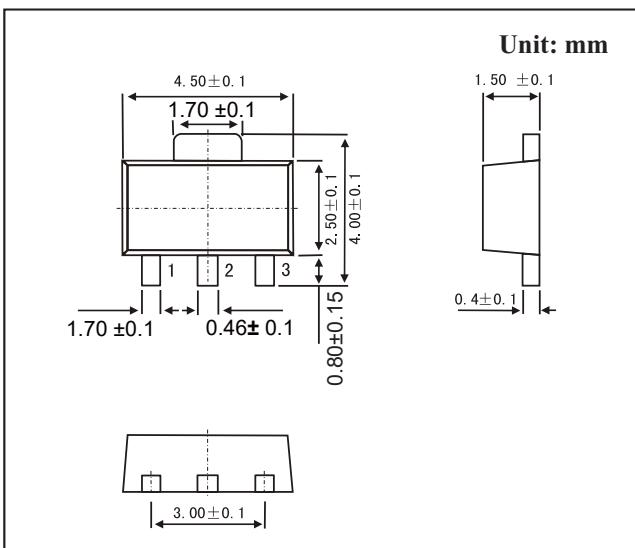
## SOT-89 Plastic-Encapsulate Transistors

## Features

- High current (max. 500mA).
  - Low voltage (max. 150 V).
  - Surface Mount PNP Silicon Transistor

## MECHANICAL DATA

- Case style:SOT-89 molded plastic
  - Mounting position:any



## **MAXIMUM RATINGS AND CHARACTERISTICS**

@ 25°C Ambient Temperature (unless otherwise noted)

Parameter	Symbol	Rating	Unit
Collector-base voltage	V <sub>CBO</sub>	-160	V
Collector-emitter voltage	V <sub>CEO</sub>	-150	V
Emitter-base voltage	V <sub>EBO</sub>	-5	V
Collector current (DC)	I <sub>C</sub>	-500	mA
power dissipation	P <sub>D</sub>	1.2	W
thermal resistance Junction- to-ambient	R <sub>θ JA</sub>	104	°C/W
Junction temperature	T <sub>j</sub>	150	°C
Storage temperature	T <sub>stg</sub>	-65 to +150	°C

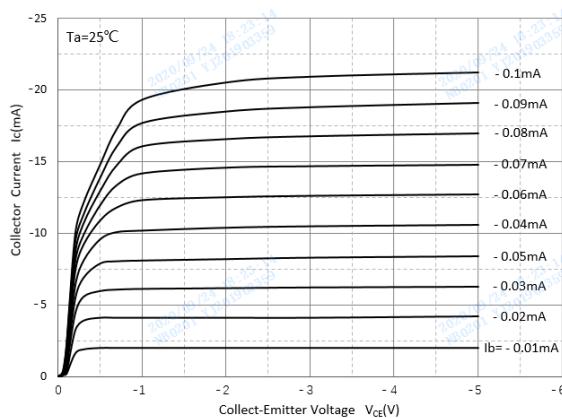
PACKAGE INFORMATION		
Device	Package	Shipping
KXT5401 (CXT5401)	SOT-89	1000/Tape&Reel

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Collector to base breakdown voltage	V <sub>CBO</sub>	I <sub>C</sub> =-100 µ A	-160			V
Collector to emitter breakdown voltage	V <sub>CEO</sub>	I <sub>C</sub> =-1.0mA	-150			V
Emitter to base breakdown voltage	V <sub>EBO</sub>	I <sub>E</sub> =-10 µ A	-5.0			V
Collector cutoff current	I <sub>CBO</sub>	V <sub>CB</sub> = - 120 V, I <sub>E</sub> = 0			-50	nA
		V <sub>CB</sub> = - 120 V, T <sub>A</sub> =100 °C			-50	µ A
DC current gain	h <sub>FE</sub>	I <sub>C</sub> = -1.0 mA; V <sub>CE</sub> = -5.0 V	50			
		I <sub>C</sub> = -10mA; V <sub>CE</sub> = - 5.0V	60		240	
		I <sub>C</sub> = -50 mA; V <sub>CE</sub> = -5.0V	50			
Collector to emitter saturation voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> = - 10 mA; I <sub>B</sub> = -1.0mA			-0.2	V
		I <sub>C</sub> = -50 mA; I <sub>B</sub> = -5.0mA			-0.5	V
Base to emitter saturation voltage	V <sub>BE(sat)</sub>	I <sub>C</sub> = -10 mA; I <sub>B</sub> = -1.0mA			-1.0	V
		I <sub>C</sub> = -50 mA; I <sub>B</sub> = -5.0mA			-1.0	V
Output capacitance	C <sub>ob</sub>	V <sub>CB</sub> =-10 V, I <sub>E</sub> = 0,f=1.0MHz			6.0	pF
Transition frequency	f <sub>T</sub>	I <sub>C</sub> = -10 mA; V <sub>CE</sub> =-10V; f = 100 MHz	100		300	MHz

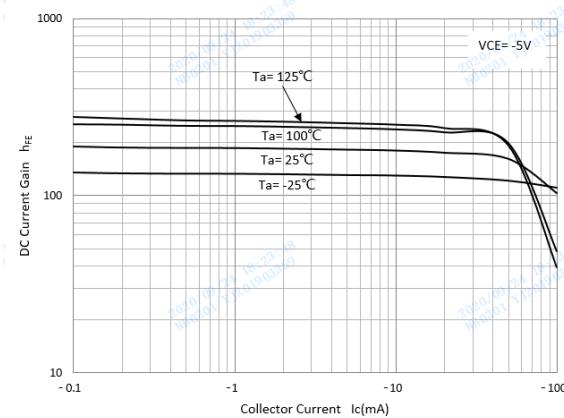
Marking 5401

## RATINGS AND CHARACTERISTIC CURVES

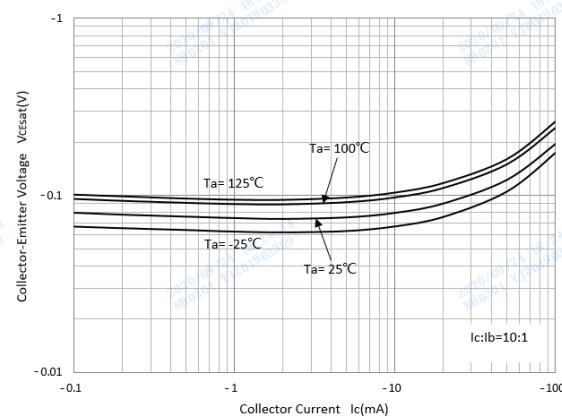
Static Characteristic



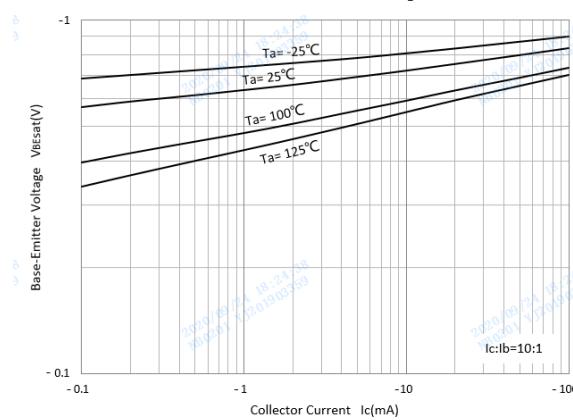
DC Current Gain



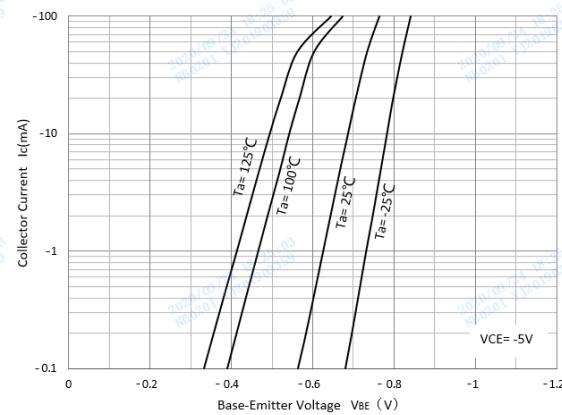
Collector-Emitter Saturation Voltage



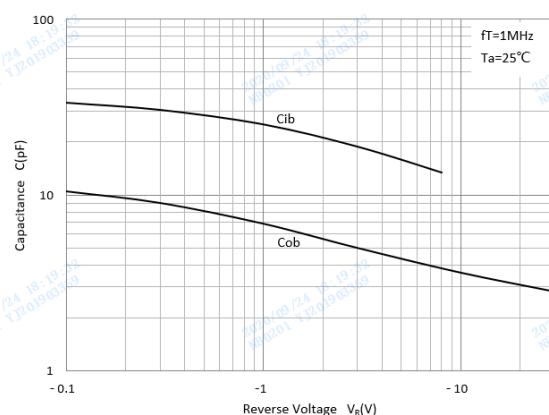
Base-Emitter Saturation Voltage



Base-Emitter On Voltage



$C_{ob}/C_{ib}-V_{CB}/V_{EB}$



Collector Power Derating Curve

