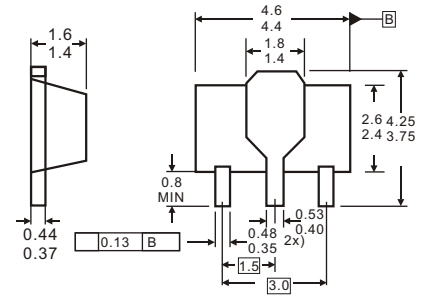


1. BASE
2. COLLECTOR
3. EMITTER

### SOT-89



Dimensions in inches and (millimeters)

## Features

- ✧ Epitaxial planar die construction
- ✧ Complementary PNP Type available(PXT2907A)

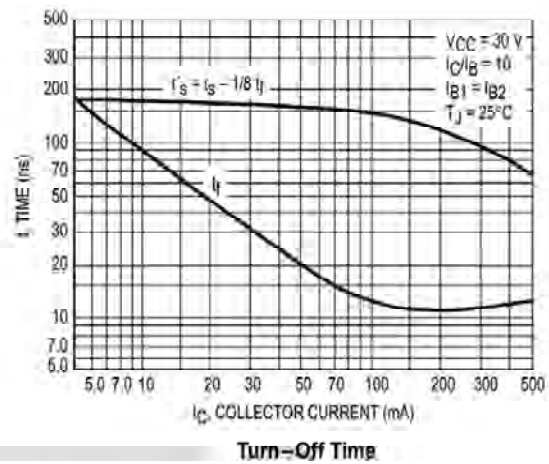
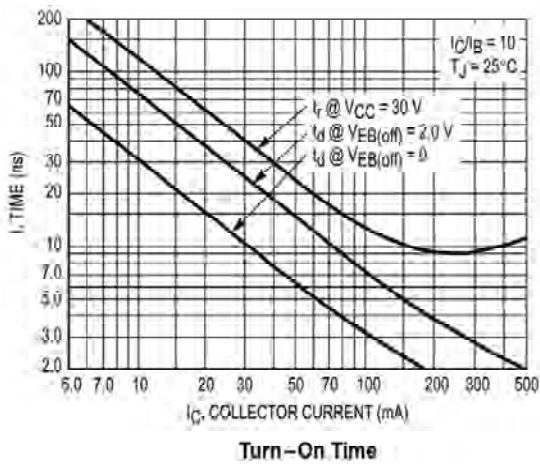
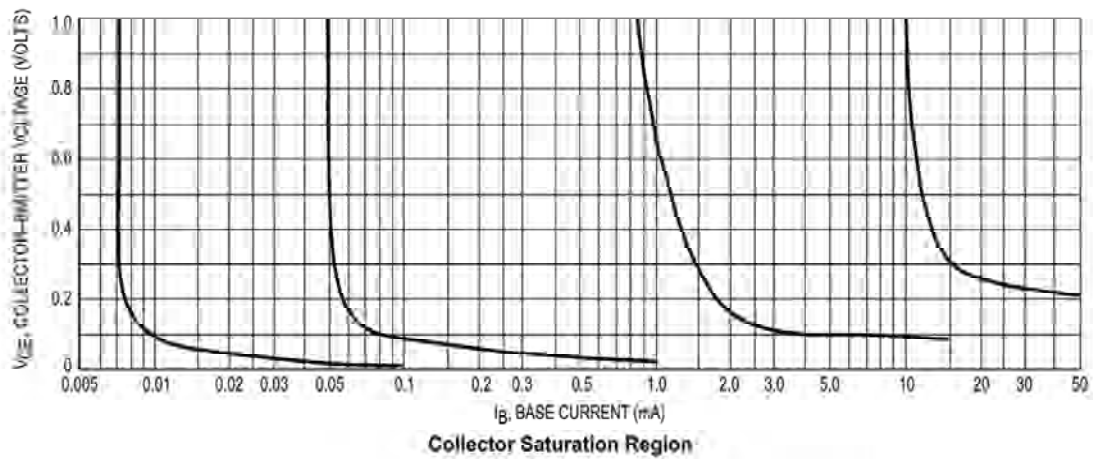
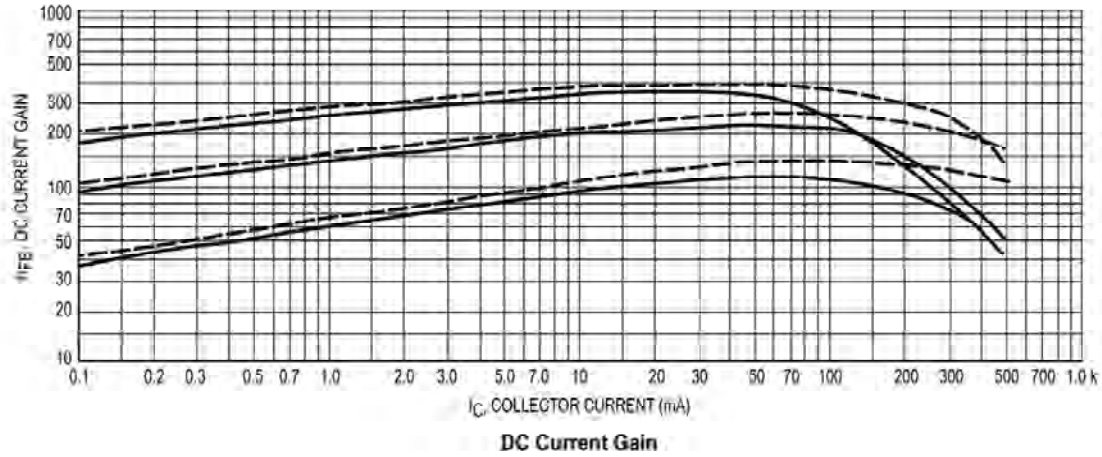
## MAXIMUM RATINGS (T<sub>A</sub>=25°C unless otherwise noted)

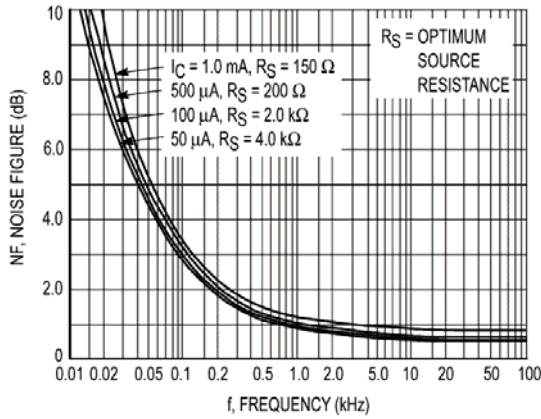
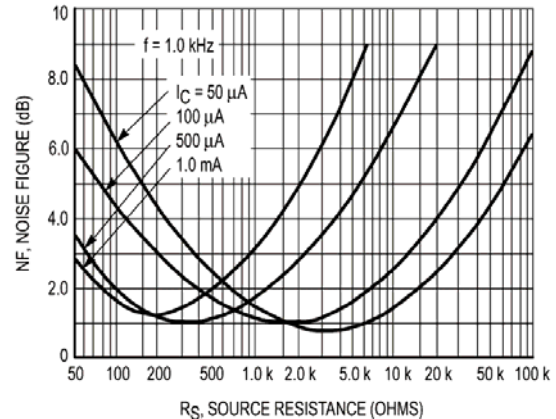
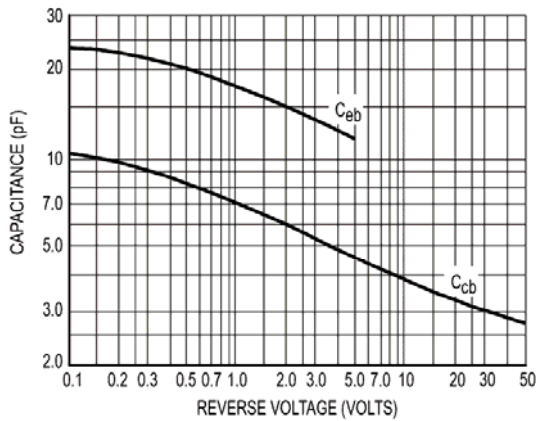
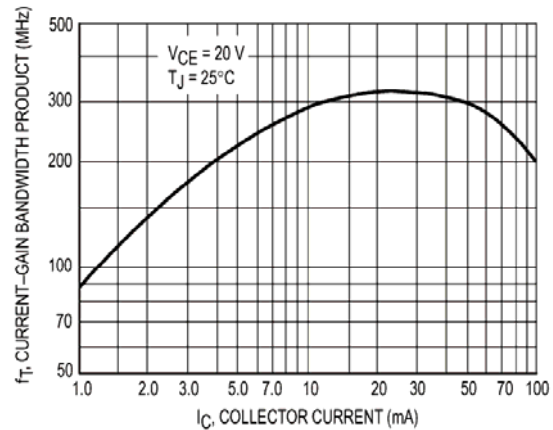
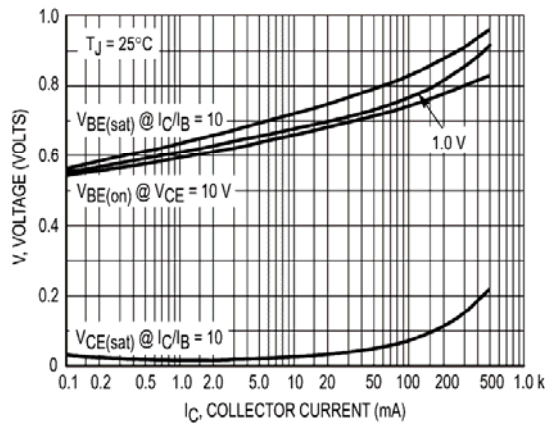
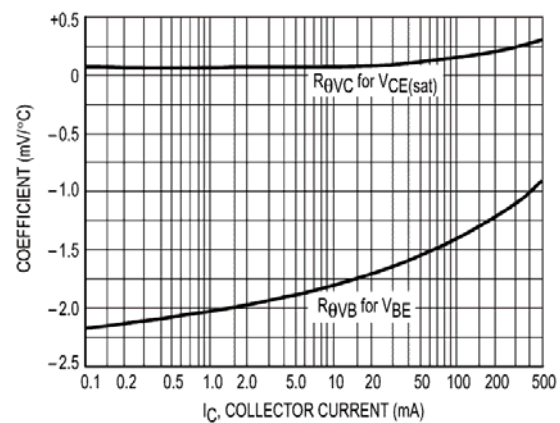
Symbol	Parameter	Value	Units
V <sub>CB0</sub>	Collector-Base Voltage	75	V
V <sub>CEO</sub>	Collector-Emitter Voltage	40	V
V <sub>EBO</sub>	Emitter-Base Voltage	6	V
I <sub>C</sub>	Collector Current -Continuous	600	mA
P <sub>C</sub>	Collector Power Dissipation	0.5	W
T <sub>J</sub>	Junction Temperature	150	°C
T <sub>stg</sub>	Storage Temperature	-55 +150	°C

## ELECTRICAL CHARACTERISTICS (T<sub>amb</sub>=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	MAX	UNIT
Collector-base breakdown voltage	V <sub>(BR)CBO</sub>	I <sub>C</sub> = 10μ A, I <sub>E</sub> =0	75		V
Collector-emitter breakdown voltage	V <sub>(BR)CEO</sub>	I <sub>C</sub> = 10mA, I <sub>B</sub> =0	40		V
Emitter-base breakdown voltage	V <sub>(BR)EBO</sub>	I <sub>E</sub> =10μA, I <sub>C</sub> =0	6		V
Collector cut-off current	I <sub>CBO</sub>	V <sub>CB</sub> =60V, I <sub>E</sub> =0		0.01	μA
Emitter cut-off current	I <sub>EBO</sub>	V <sub>EB</sub> = 5V, I <sub>C</sub> =0		0.01	μA
DC current gain	h <sub>FE(1)</sub>	V <sub>CE</sub> =10V, I <sub>C</sub> = 0.1mA	35		
	h <sub>FE(2)</sub>	V <sub>CE</sub> =10V, I <sub>C</sub> = 1mA	50		
	h <sub>FE(3)</sub>	V <sub>CE</sub> =10V, I <sub>C</sub> = 10mA	75		
	h <sub>FE(4)</sub>	V <sub>CE</sub> =10V, I <sub>C</sub> = 150mA	100	300	
	h <sub>FE(5)</sub>	V <sub>CE</sub> =1V, I <sub>C</sub> = 150mA	50		
	h <sub>FE(6)</sub>	V <sub>CE</sub> =10V, I <sub>C</sub> = 500mA	40		
Collector-emitter saturation voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> =500mA, I <sub>B</sub> = 50mA		1	V
	V <sub>CE(sat)</sub>	I <sub>C</sub> =150mA, I <sub>B</sub> =15mA		0.3	V
Base-emitter saturation voltage	V <sub>BE(sat)</sub>	I <sub>C</sub> =500mA, I <sub>B</sub> =50mA		2.0	V
	V <sub>BE(sat)</sub>	I <sub>C</sub> =150mA, I <sub>B</sub> =5mA	0.6	1.2	V
Transition frequency	f <sub>T</sub>	V <sub>CE</sub> =10V, I <sub>C</sub> =20mA f=100MHZ	300		MHZ
Output Capacitance	C <sub>ob</sub>	V <sub>CB</sub> =10V, I <sub>E</sub> = 0, f=1MHZ		8	pF
Delay time	t <sub>d</sub>	V <sub>CC</sub> =30V, I <sub>C</sub> =150mA		10	nS
Rise time	t <sub>r</sub>	V <sub>BE(off)</sub> =0.5V, I <sub>B1</sub> =15mA		25	nS
Storage time	t <sub>s</sub>	V <sub>CC</sub> =30V, I <sub>C</sub> =150mA		225	nS
Fall time	t <sub>f</sub>	I <sub>B1</sub> =- I <sub>B2</sub> = 15mA		60	nS

### Typical characteristics




**Frequency Effects**

**Source Resistance Effects**

**Capacitances**

**Current-Gain Bandwidth Product**

**"On" Voltages**

**Temperature Coefficients**

Package	Reel	Reel Size	Box	Box Size(mm)	Carton	Carton Size(mm)
SOT -89	1000pcs	7inch	10,000pcs	203×203×195	40,000pcs	438×438×220