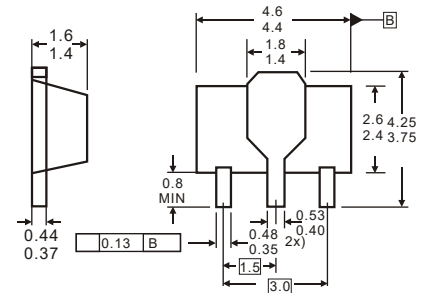


1. BASE

2. COLLECTOR

3. EMITTER

SOT-89



Dimensions in inches and (millimeters)

Features

- ✧ Power dissipation

MARKING:P1

MAXIMUM RATINGS ($T_A=25^{\circ}\text{C}$ unless otherwise noted)

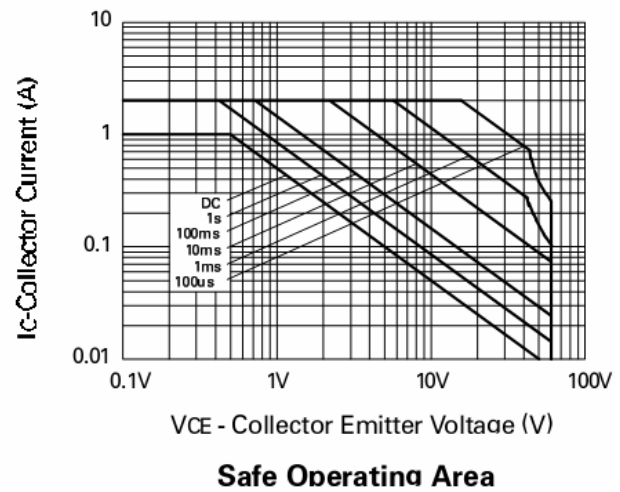
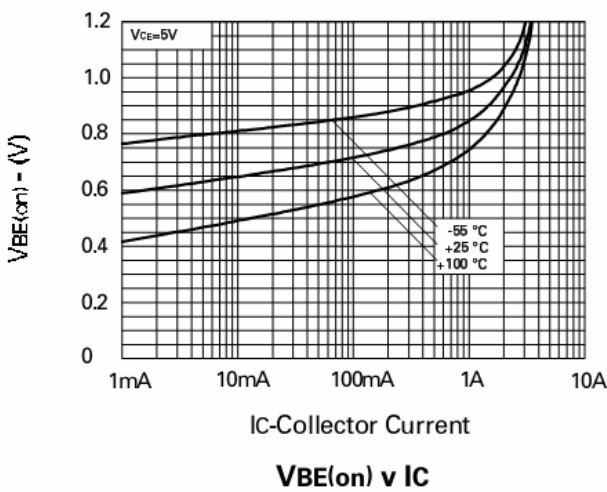
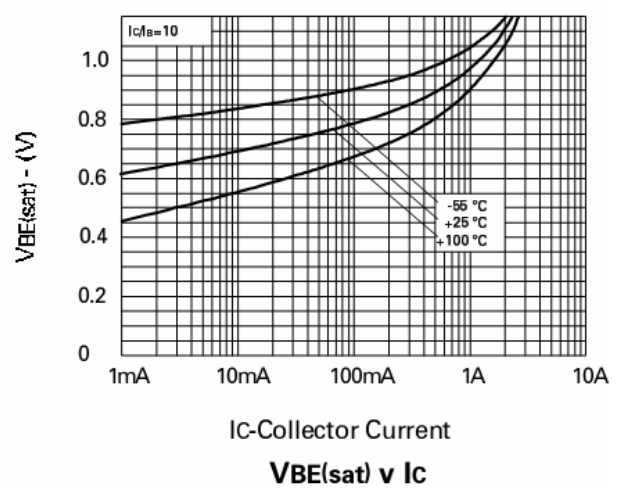
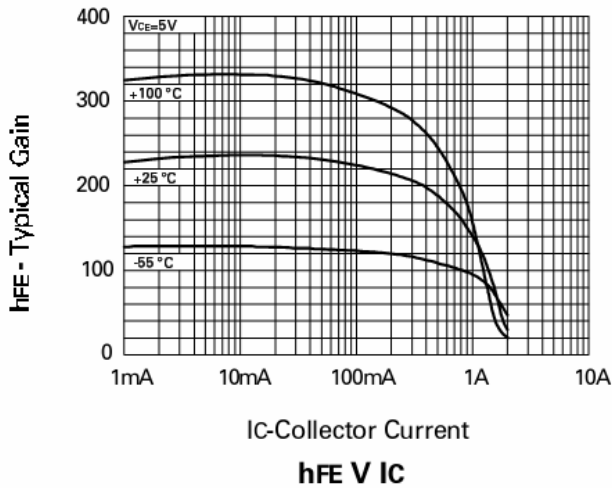
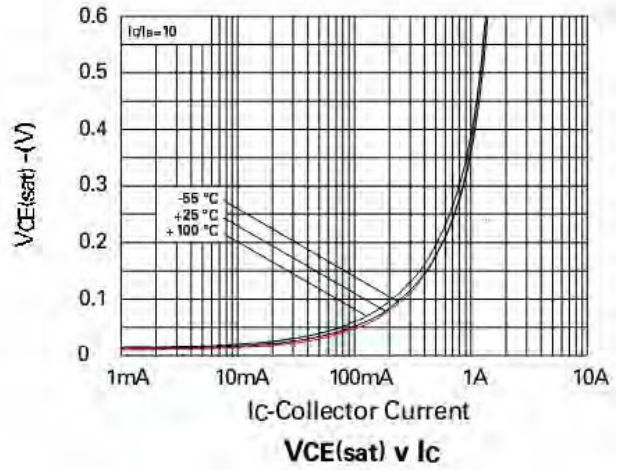
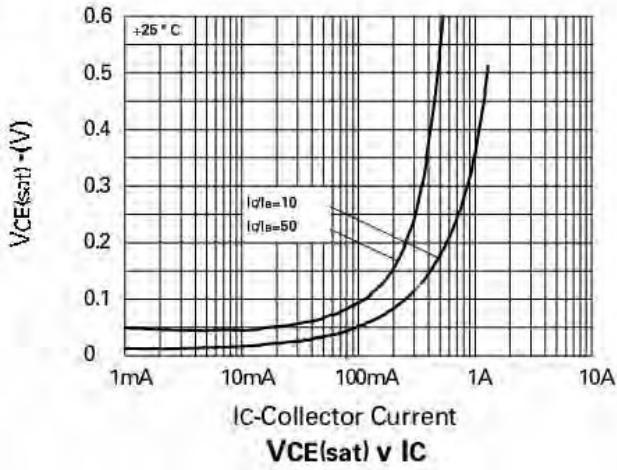
Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	-80	V
V_{CEO}	Collector-Emitter Voltage	-60	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current –Continuous	-1	A
P_C	Collector Power Dissipation	0.5	W
T_J	Junction Temperature	150	$^{\circ}\text{C}$
T_{stg}	Storage Temperature	-65-150	$^{\circ}\text{C}$

ELECTRICAL CHARACTERISTICS ($T_{amb}=25^{\circ}\text{C}$ unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=-100\mu\text{A}$, $I_E=0$	-80		V
Collector-emitter breakdown voltage	$V_{(BR)CEO}^*$	$I_C=-10\text{mA}$, $I_B=0$	-60		V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=-100\mu\text{A}$, $I_C=0$	-5		V
Collector cut-off current	I_{CBO}	$V_{CB}=-60\text{V}$, $I_E=0$		-0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=-4\text{V}$, $I_C=0$		-0.1	μA
Collector- Emitter cut-off current	I_{CES}	$V_{CES}=-60\text{V}$, $I_E=0$		-0.1	μA
DC current gain	h_{FE}^*	$V_{CE}=-5\text{V}$, $I_C=-1\text{mA}$	100		
		$V_{CE}=-5\text{V}$, $I_C=-500\text{mA}$	100	300	
		$V_{CE}=-5\text{V}$, $I_C=-1\text{A}$	80		
		$V_{CE}=-5\text{V}$, $I_C=-2\text{A}$	15		
Collector-emitter saturation voltage	$V_{CE(sat)}^*$	$I_C=-500\text{mA}$, $I_B=-50\text{mA}$ $I_C=-1\text{A}$, $I_B=-100\text{mA}$		-0.3 -0.6	V
Base-emitter saturation voltage	$V_{BE(sat)}^*$	$I_C=-1\text{A}$, $I_B=-100\text{mA}$		-1.2	V
Base-emitter voltage	V_{BE}^*	$V_{CE}=-5\text{V}$, $I_C=-1\text{A}$		-1	V
Transition frequency	f_T	$V_{CE}=-10\text{V}$, $I_C=-50\text{mA}$ $f=100\text{MHz}$	150		MHz
Collector output capacitance	C_{ob}	$V_{CB}=-10\text{V}$, $f=1\text{MHz}$		10	pF

*Pulse width=300s. Duty cycle 2%

Typical Characteristics



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