

1. BASE
2. COLLECTOR
3. EMITTER

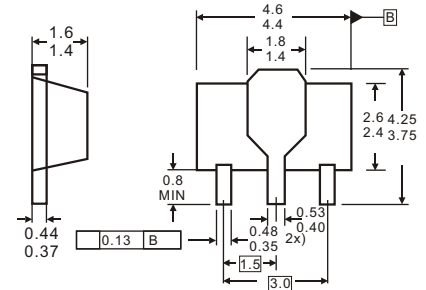
Features

- ◇ Large collector power dissipation P_C
- ◇ Complementary to 2SD874A

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

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	-60	V
V_{CEO}	Collector-Emitter Voltage	-50	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current -Continuous	-1	A
P_C	Collector Power Dissipation	500	mW
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature	-55-150	$^\circ\text{C}$

SOT-89



Dimensions in inches and (millimeters)

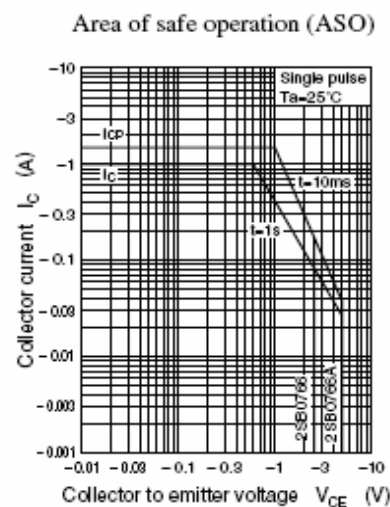
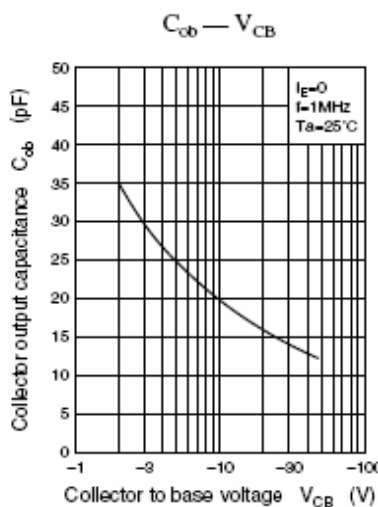
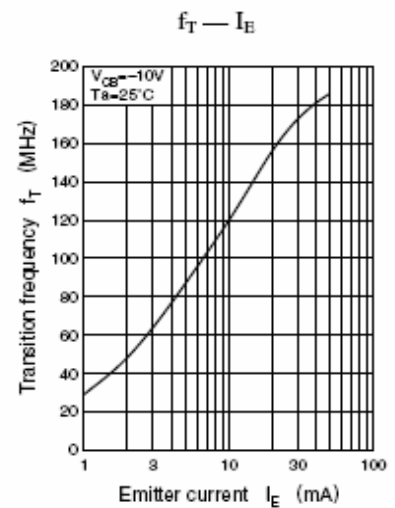
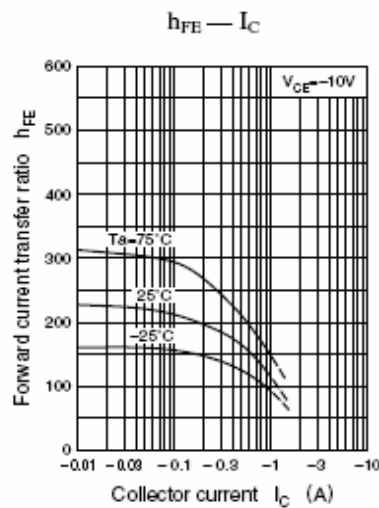
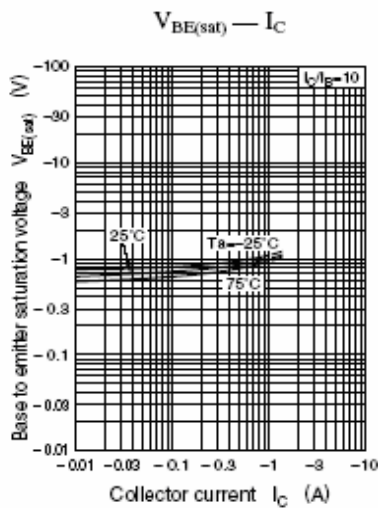
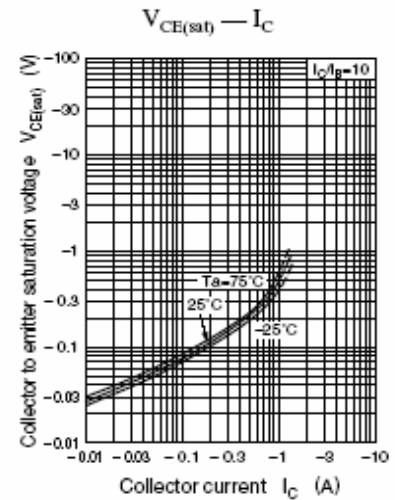
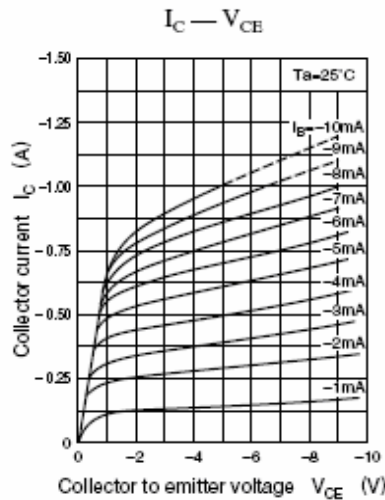
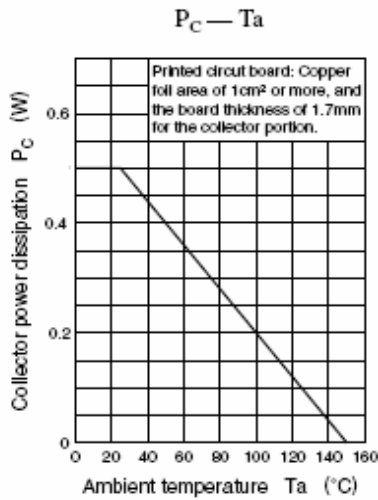
ELECTRICAL CHARACTERISTICS ($T_{amb}=25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=-10\mu\text{A}, I_E=0$	-60			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=-2\text{mA}, I_B=0$	-50			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=-10\mu\text{A}, I_C=0$	-5			V
Collector cut-off current	I_{CBO}	$V_{CB}=-20\text{V}, I_E=0$			-0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=-4\text{V}, I_C=0$			-0.1	μA
DC current gain	$h_{FE(1)}$	$V_{CE}=-10\text{V}, I_C=-500\text{mA}$	85		340	
	$h_{FE(2)}$	$V_{CE}=-5\text{V}, I_C=-1\text{A}$	50			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=-500\text{mA}, I_B=-50\text{mA}$		-0.2	-0.4	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C=-500\text{mA}, I_B=-50\text{mA}$		-0.85	-1.2	V
Transition frequency	f_T	$V_{CE}=-10\text{V}, I_C=-50\text{mA}, f=200\text{MHz}$		200		MHz
Collector output capacitance	C_{ob}	$V_{CB}=-10\text{V}, I_E=0, f=1\text{MHz}$		20	30	pF

CLASSIFICATION OF $h_{FE(1)}$

Rank	Q	R	S
Range	85-170	120-240	170-340
MAKING	BQ	BR	BS

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