

1. BASE
2. COLLECTOR
3. EMITTER

### Features

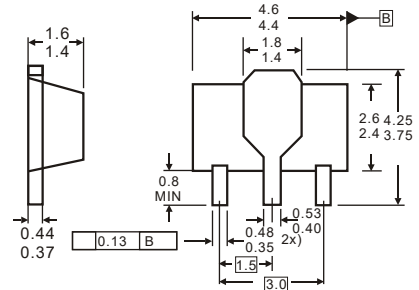
- ✧ High collector to base voltage  $V_{CBO}$
- ✧ High collector to emitter voltage  $V_{CEO}$
- ✧ Large collector power dissipation  $P_C$
- ✧ Low collector to emitter saturation voltage  $V_{CE(sat)}$

### Marking:1S

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

Symbol	Parameter	Value	Units
$V_{CBO}$	Collector-Base Voltage	400	V
$V_{CEO}$	Collector-Emitter Voltage	400	V
$V_{EBO}$	Emitter-Base Voltage	5	V
$I_C$	Collector Current -Continuous	100	mA
$P_C$	Collector Power Dissipation	500	mW
$T_J$	Junction Temperature	150	$^{\circ}C$
$T_{stg}$	Storage Temperature	-55-150	$^{\circ}C$

### SOT-89



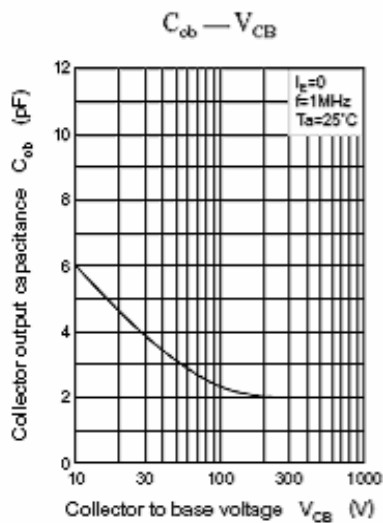
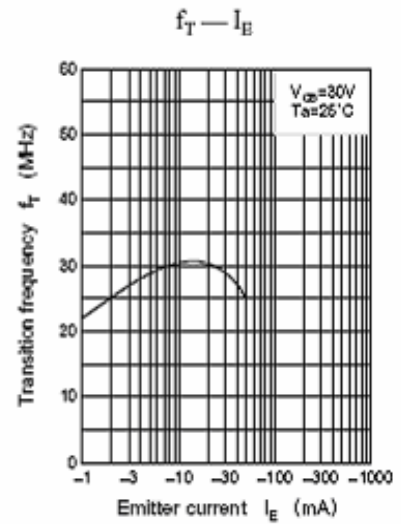
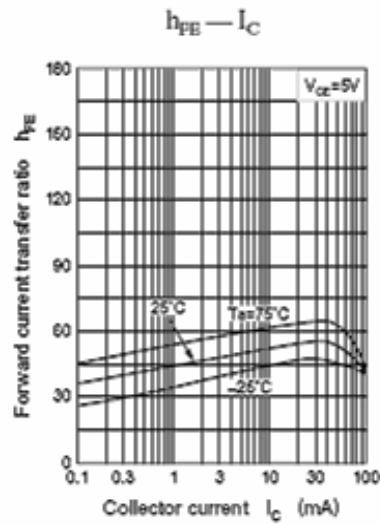
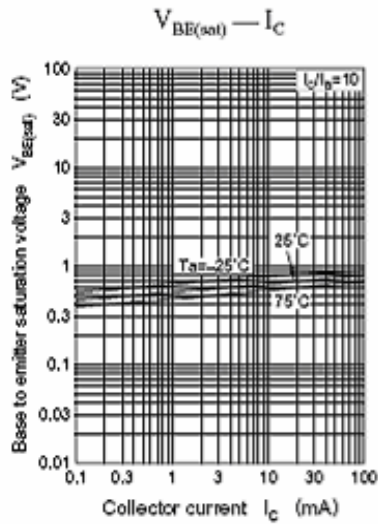
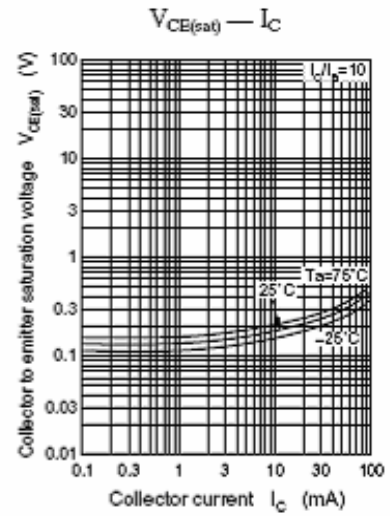
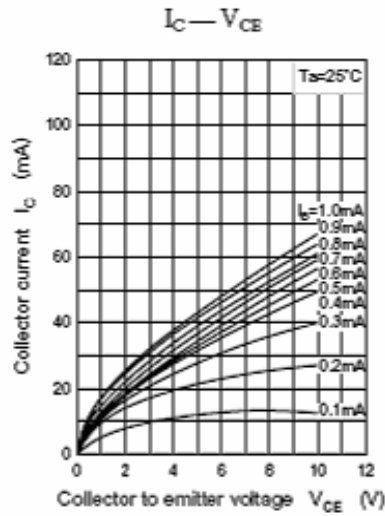
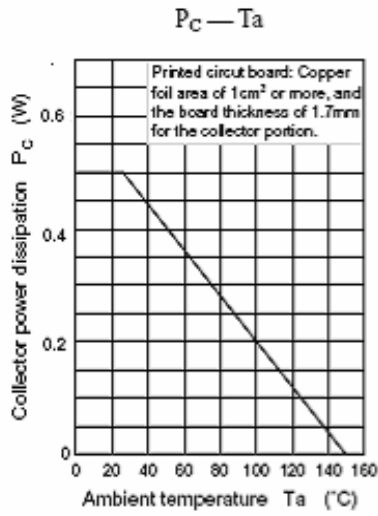
Dimensions in inches and (millimeters)

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

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=100\mu A, I_E=0$	400			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=0.5mA, I_B=0$	400			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=100\mu A, I_C=0$	5			V
Collector cut-off current	$I_{CBO}$	$V_{CB}=400V, I_E=0$			50	$\mu A$
Emitter cut-off current	$I_{EBO}$	$V_{EB}=5V, I_C=0$			50	$\mu A$
DC current gain	$h_{FE}$	$V_{CE}=5V, I_C=30mA$	30			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=50mA, I_B=5mA$			1.5	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C=50mA, I_B=5mA$			1.5	V
Transition frequency	$f_T$	$V_{CE}=30V, I_C=20mA, f=200MHz$		40		MHz
Collector output capacitance	$C_{ob}$	$V_{CB} = 30V, I_E=0, f=1MHz$			7	pF



## 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