



## SOT-89-3L Plastic-Encapsulate Transistors

### 2SC2884 TRANSISTOR (NPN)

#### FEATURES

- Small Flat Package
- Complementary to 2SA1204
- High DC Current Gain

#### APPLICATIONS

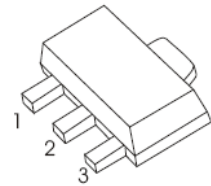
- Audio Frequency Amplifier

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

Symbol	Parameter	Value	Unit
$V_{CB0}$	Collector-Base Voltage	35	V
$V_{CEO}$	Collector-Emitter Voltage	30	V
$V_{EBO}$	Emitter-Base Voltage	5	V
$I_C$	Collector Current	800	mA
$P_C$	Collector Power Dissipation	500	mW
$R_{\theta JA}$	Thermal Resistance From Junction To Ambient	250	$^{\circ}\text{C}/\text{W}$
$T_j$	Junction Temperature	150	$^{\circ}\text{C}$
$T_{stg}$	Storage Temperature	-55~+150	$^{\circ}\text{C}$

#### SOT-89-3L

1. BASE
2. COLLECTOR
3. EMITTER

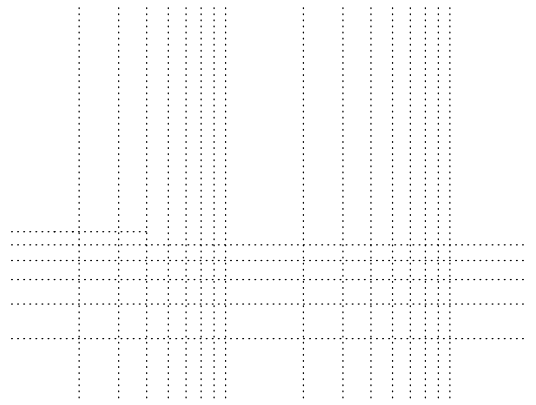
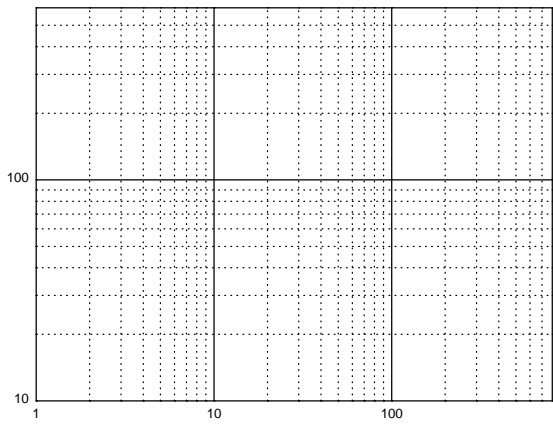
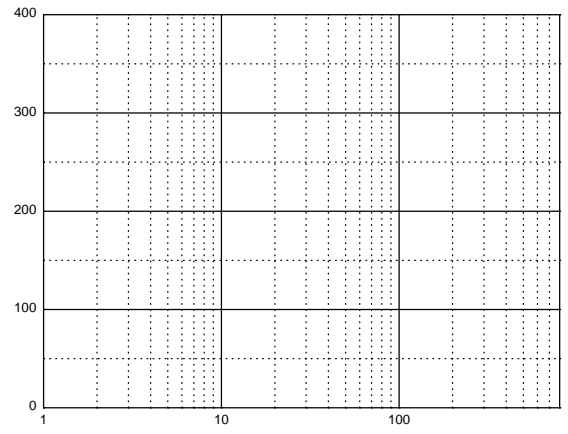


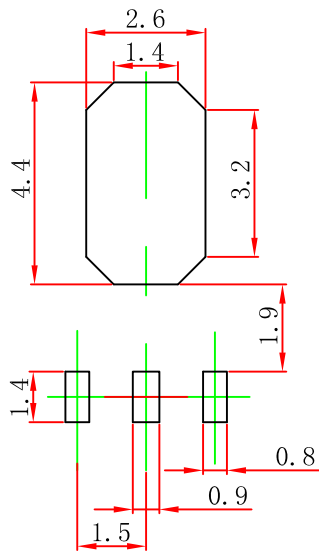
#### ELECTRICAL CHARACTERISTICS ( $T_a=25^{\circ}\text{C}$ unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=1\text{mA}, I_E=0$	35			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=10\text{mA}, I_B=0$	30			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=1\text{mA}, I_C=0$	5			V
Collector cut-off current	$I_{CBO}$	$V_{CB}=35\text{V}, I_E=0$			0.1	$\mu\text{A}$
Emitter cut-off current	$I_{EBO}$	$V_{EB}=5\text{V}, I_C=0$			0.1	$\mu\text{A}$
DC current gain	$h_{FE(1)}$	$V_{CE}=1\text{V}, I_C=100\text{mA}$	100		320	
	$h_{FE(2)}$	$V_{CE}=1\text{V}, I_C=700\text{mA}$	35			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=500\text{mA}, I_B=20\text{mA}$			0.5	V
Base-emitter voltage	$V_{BE}$	$V_{CE}=1\text{V}, I_C=10\text{mA}$	0.5		0.8	V
Transition frequency	$f_T$	$V_{CE}=5\text{V}, I_C=10\text{mA}$		120		MHz
Collector output capacitance	$C_{ob}$	$V_{CB}=10\text{V}, I_E=0, f=1\text{MHz}$		13		pF

#### CLASSIFICATION OF $h_{FE(1)}$

RANK	O	Y
RANGE	100 - 200	160 - 320
MARKING	PO1	PY1





Note:

1. Controlling dimension: in millimeter
2. General tolerance:  $\pm 0.05$  mm.
3. The pad layout is for reference purposes.



## SOT-89-3L Embossed Carrier Tape

### Packaging Description

SOT-89-3L parts are shipped in tape. The carrier tape is made from a dissipative (carbon filled) polycarbonate resin. The cover tape is a multilayer film (Heat Activated Adhesive in nature) primarily composed of polyester film, adhesive layer, sealant, and an optional spray coat.



Dimensions are in millimeter										
Pkg type	A	B	C	d	E	F	P0	P	P1	W
SOT-89-3L	4.85	4.45	1.85	Ø1.50	1.75	5.50	4.00	8.00	2.00	12.00

## SOT-89-3L Tape Leader and Trailer

## SOT-89-3L Reel

REEL	Reel Size	Box	Box Size(mm)	Carton	Carton Size(mm)	G.W.(kg)
1000 pcs	7 inch	10,000 pcs	203×203×195	40,000 pcs	438×438×220	