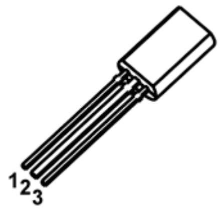
TO-92L Plastic-Encapsulate Transistors

2SB892 TRANSISTOR (PNP)

TO-92L

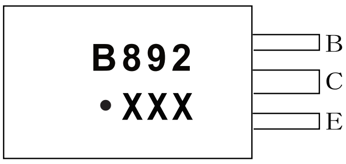
1. EMITTER
2. COLLECTOR
3. BASE



FEATURE

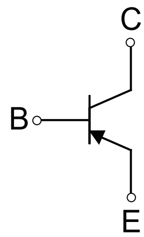
- Power Supplies, Relay Drivers, Lamp Drivers, and Automotive Wiring
- Low Saturation Voltage.
- Large Current Capacity and Wide ASO.

MARKING



B892=Device code
Soliddot= Greenmolding compound device, if none, the normal device
XXX=Code

Equivalent Circuit



ORDERING INFORMATION

Part Number	Package	Packing Method	Pack Quantity
2SB892	TO-92L	Bulk	500pcs/Bag
2SB892-TA	TO-92L	Tape	2000pcs/Box

MAXIMUM RATINGS (T_a=25℃ unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	-60	V
V_{CEO}	Collector-Emitter Voltage	-50	V
V_{EBO}	Emitter-Base Voltage	-6	V
I_C	Collector Current -Continuous	-2	A
P_D	Collector Power Dissipation	750	mW
$R_{\theta JA}$	Thermal Resistance from Junction to Ambient	167	℃ /W
T_j	Junction Temperature	150	℃
T_{stg}	Storage Temperature	-55~+150	℃

ELECTRICAL CHARACTERISTICS

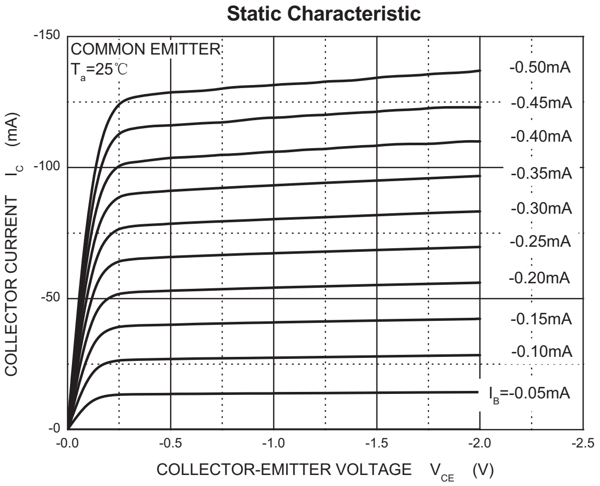
T_a=25℃ unless otherwise specified

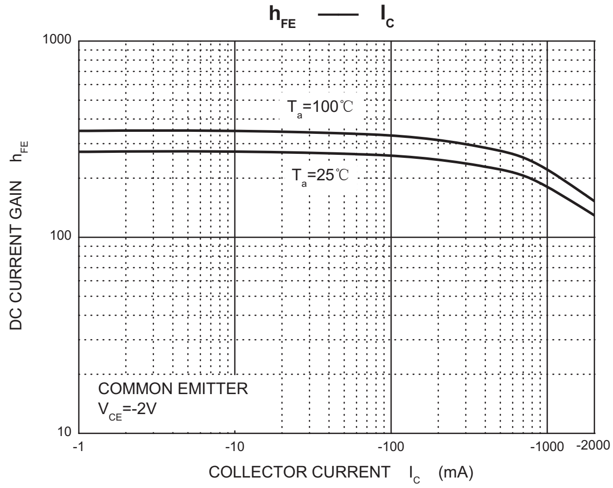
Parameter	Symbol	Test conditions	Min	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C= -100μA , I_E=0	-60		V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C= -1mA , I_B=0	-50		V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=- 100μA, I_C=0	-6		V
Collector cut-off current	I_{CBO}	V_{CB}= -50V , I_E=0		-0.1	μA
Emitter cut-off current	I_{EBO}	V_{EB}= -4V , I_C=0		-0.1	μA
DC current gain	$h_{FE(1)}$	V_{CE}=-2V, I_C= -100mA	100	560	
	$h_{FE(2)}$	V_{CE}=-2V, I_C= -1.5A	40		
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C= -1A, I_B= -50mA		-0.4	V
Base-emitter saturation voltage	$V_{BE(sat)}$	I_C= -1A, I_B= -50mA		-1.2	V
Transition frequency	f_T	V_{CE}= -10 V, I_C= -50mA	150		MHz

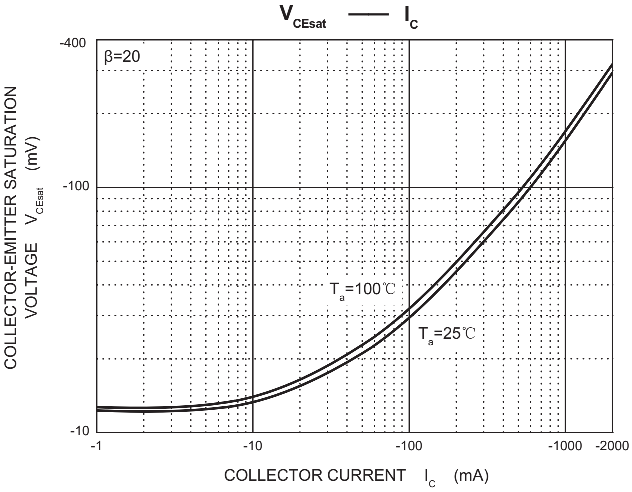
CLASSIFICATION OF $h_{FE(1)}$

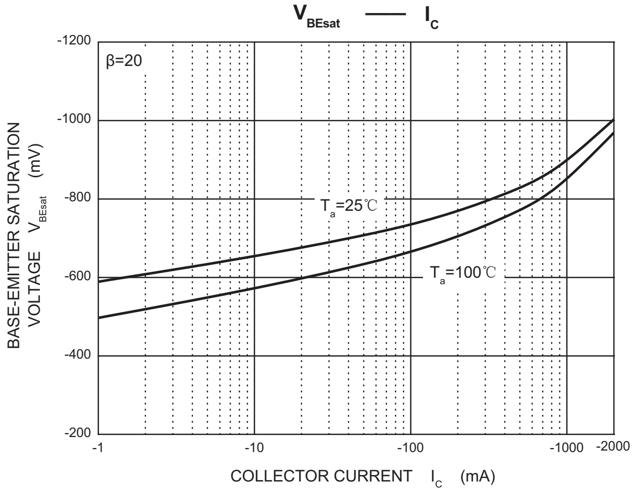
Rank	**R**	**S**	**T**	**U**
Range	100-200	140-280	200-400	280-560

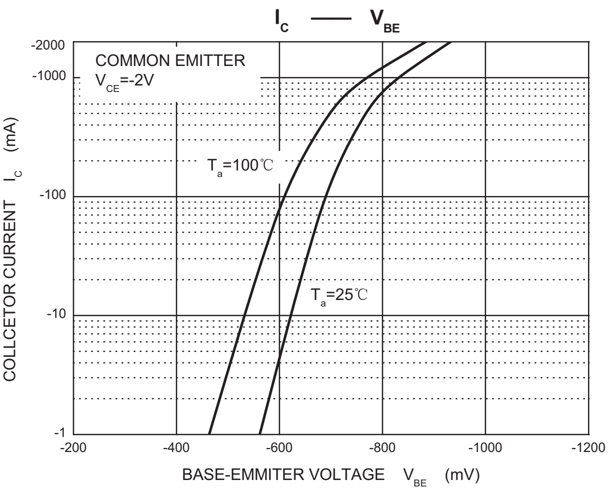
Typical Characteristics

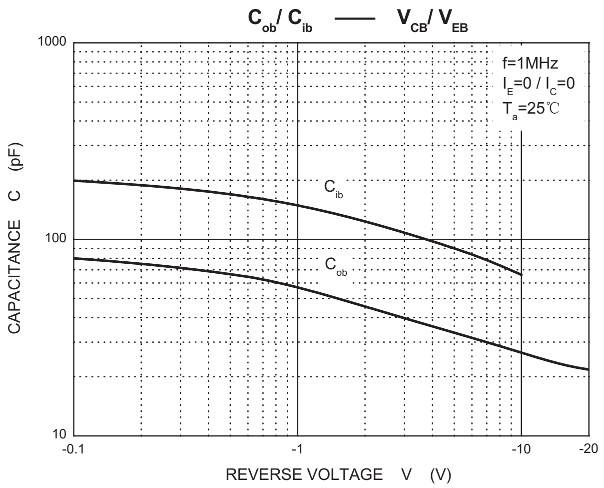


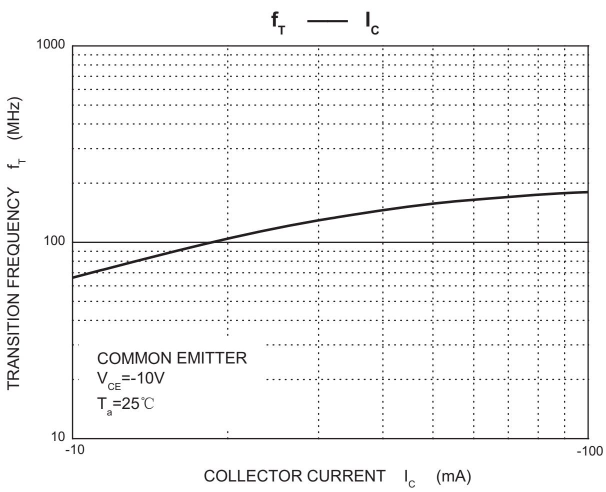


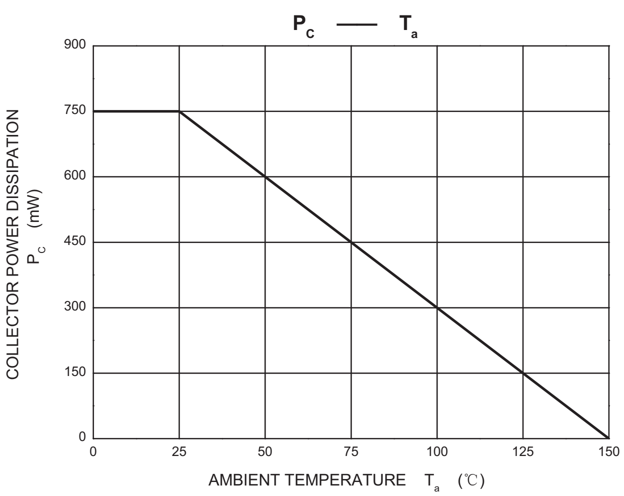




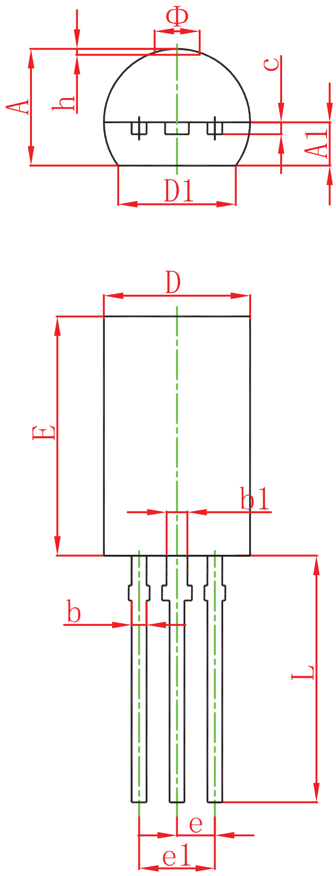






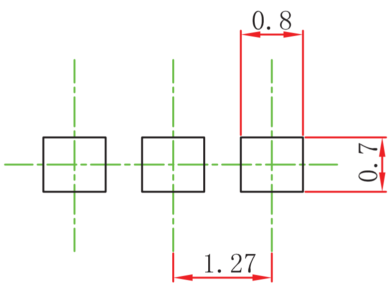


TO-92L Package Outline Dimensions



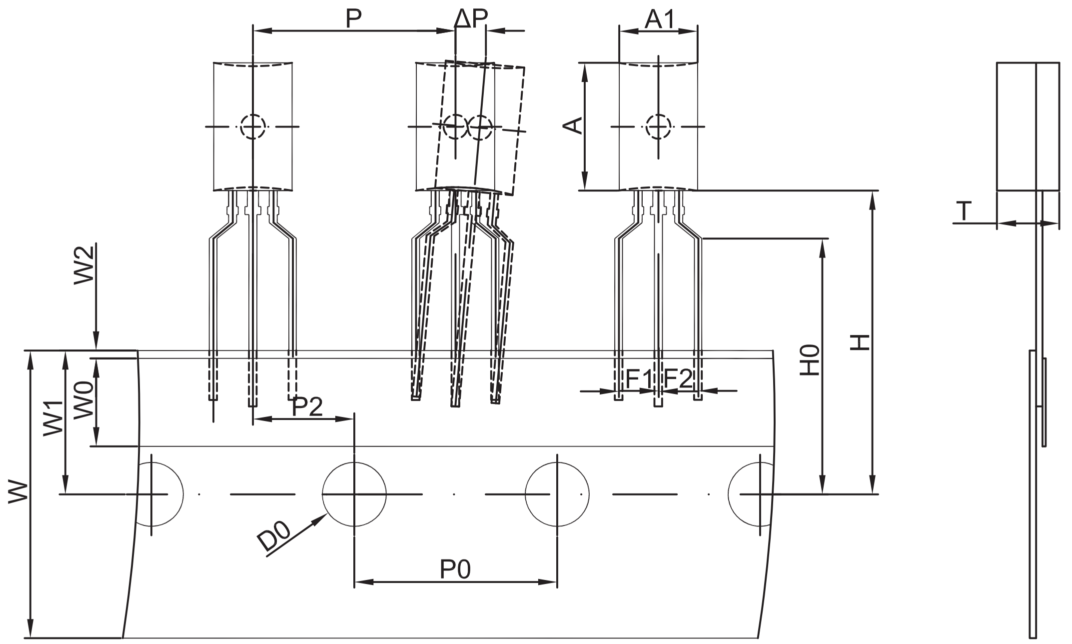
Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	3.750	4.050	0.148	0.159
A1	1.280	1.580	0.050	0.062
b	0.380	0.550	0.015	0.022
b1	0.620	0.780	0.024	0.031
c	0.350	0.450	0.014	0.018
D	4.750	5.050	0.187	0.199
D1	4.000		0.157	
E	7.850	8.150	0.309	0.321
e	1.270 TYP.		0.050 TYP.	
e1	2.440	2.640	0.096	0.104
L	13.800	14.200	0.543	0.559
Φ		1.600		0.063
h	0.000	0.300	0.000	0.012

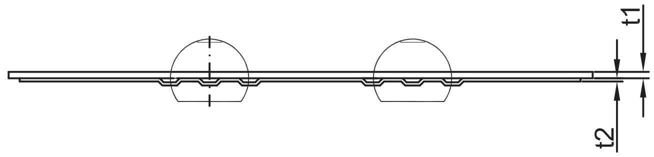
TO-92L Suggested Pad Layout



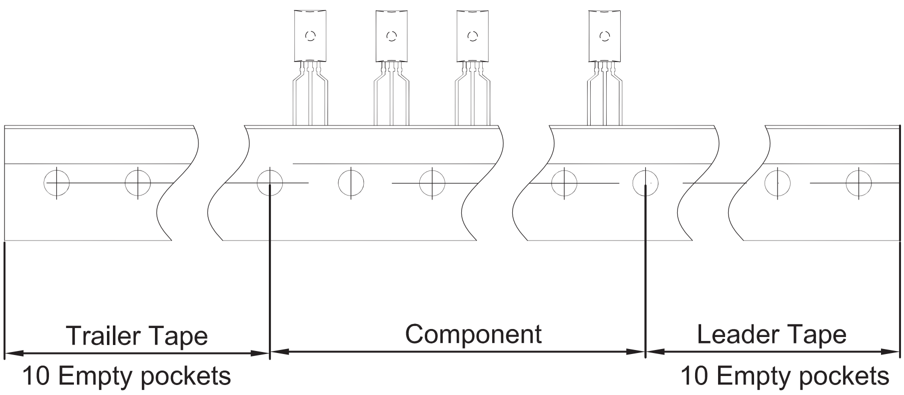
Note:
1.Controlling dimension:in millimeters.
2.General tolerance:±0.05mm.
3.The pad layout is for reference purposes only.

TO-92L PACKAGE TAPEING DIMENSION





Dimiensions are in millimeter								
A1	A	T	P	P0	P2	F1	F2	W
4.9	8.0	3.9	12.7	12.7	6.35	2.5	2.5	18.0
W0	W1	W2	H	H0	D0	t1	t2	ΔP
6.0	9.0	1.0	19.0	16.0	4.0	0.4	0.2	0



Package	Box	Box Size(mm)	Carton	Carton Size(mm)
TO-92L	2000 pcs	333×203×42	20,000 pcs	493×400×264