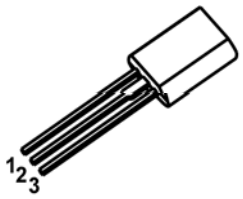
JIANGSU CHANGJIANG ELECTRONICS TECHNOLOGY CO., LTD

TO-92MOD Plastic-Encapsulate Transistors

2SB892 TRANSISTOR (PNP)

TO-92MOD

1. EMITTER
2. COLLECTOR
3. BASE



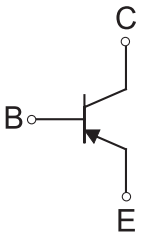
FEATURE

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

MARKING

B892=Device code
Solid dot = Green molding compound device, if none, the normal device
XXX=Code

Equivalent Circuit



ORDERING INFORMATION

Part Number	Package	Packing Method	Pack Quantity
2SB892	TO-92MOD	Bulk	500pcs/Bag
2SB892-TA	TO-92MOD	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_C	Collector Dissipation	1	W
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature	-55-150	℃

ELECTRICAL CHARACTERISTICS

T_a=25℃ unless otherwise specified

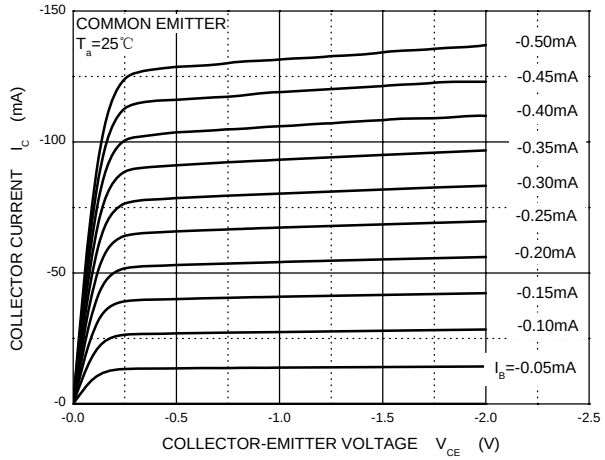
Parameter	Symbol	Test conditions	Min	Max	Unit
Collector-base breakdown voltage	$V(BR)_{CBO}$	I_C= -100μA , I_E=0	-60		V
Collector-emitter breakdown voltage	$V(BR)_{CEO}$	I_C= -1mA , I_B=0	-50		V
Emitter-base breakdown voltage	$V(BR)_{EBO}$	I_E=- 100μA, I_C=0	-6		V
Collector cut-off current	I_{CBO}	V_{CB}= -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 $h_{FE(1)}$

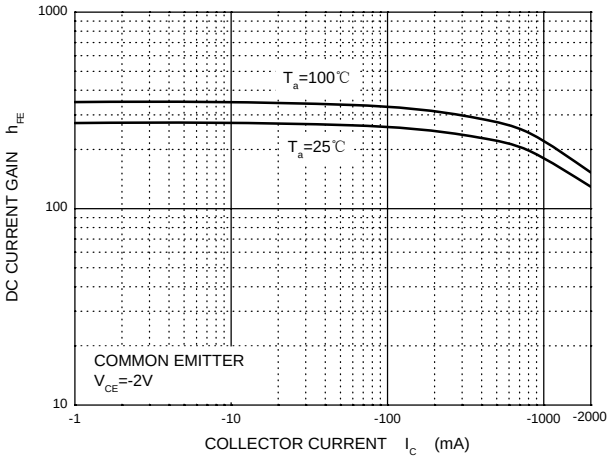
Rank	R	S	T	U
Range	100-200	140-280	200-400	280-560

Typical Characteristics

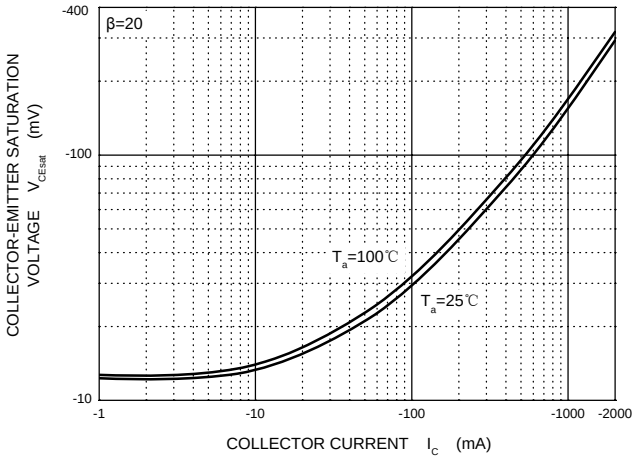
Static Characteristic



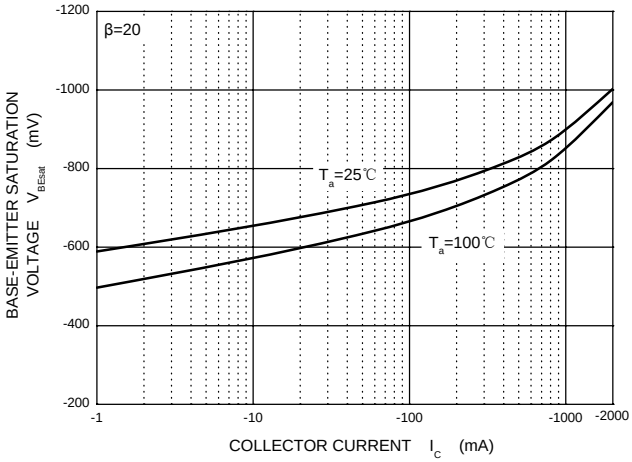
h_{FE} —— I_C



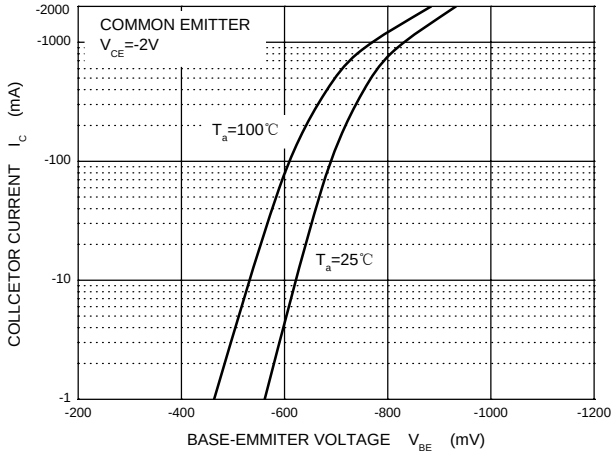
V_{CEsat} —— I_C



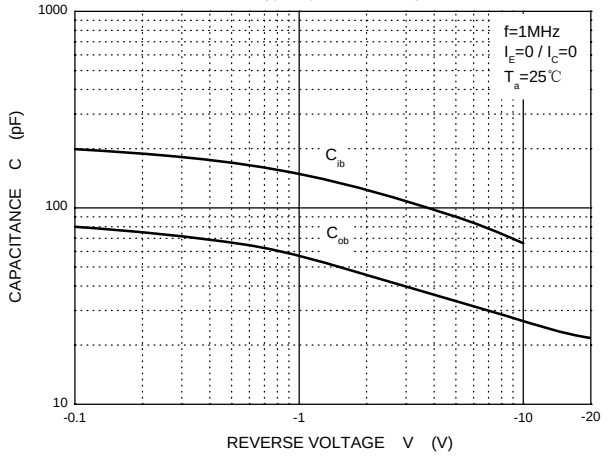
V_{BEsat} —— I_C



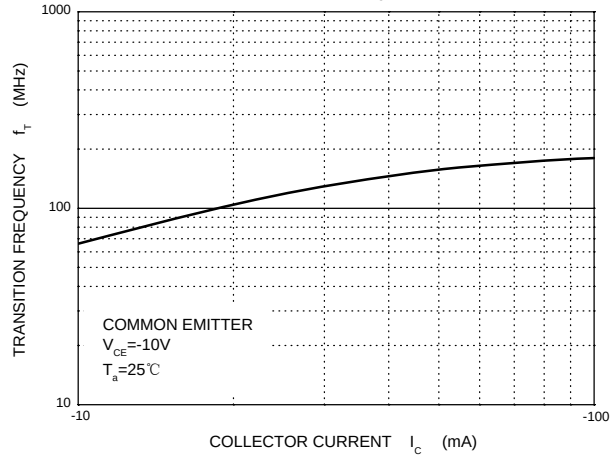
I_C —— V_{BE}



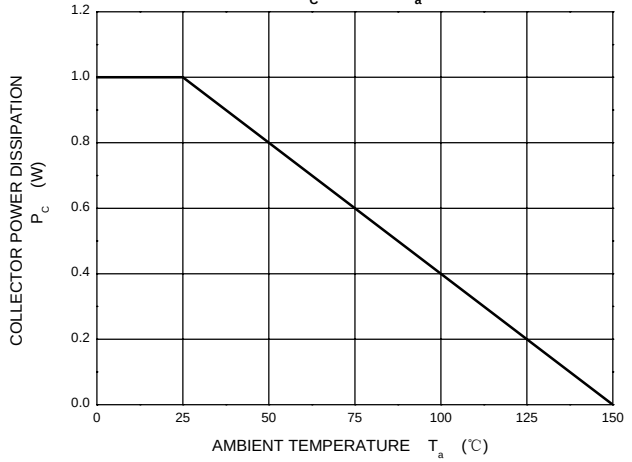
C_{ob}/ C_{ib} —— V_{CB}/ V_{EB}



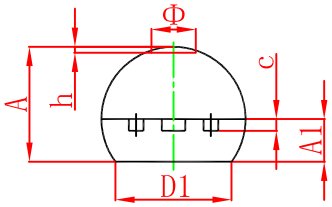
f_T —— I_C

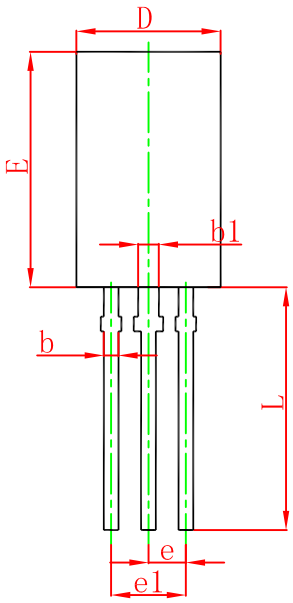


P_C —— T_a



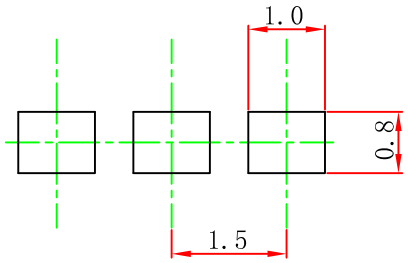
TO-92MOD Package Outline Dimensions





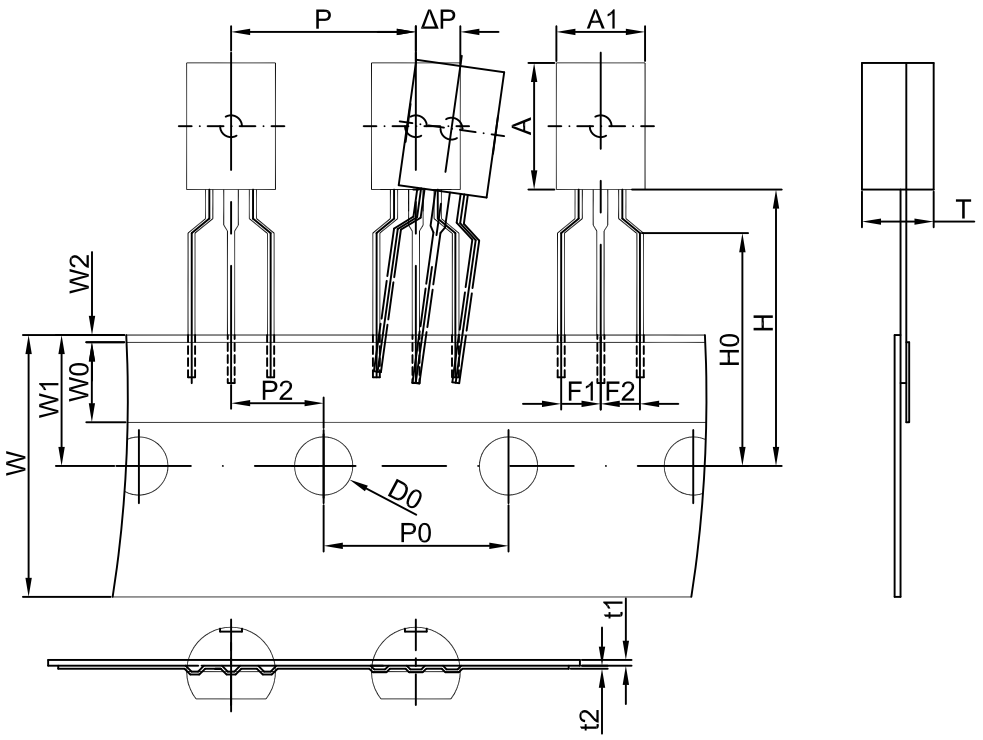
Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	4.800	5.000	0.189	0.197
A1	1.730	2.030	0.068	0.080
b	0.440	0.600	0.017	0.024
b1	0.940	1.100	0.037	0.043
c	0.350	0.450	0.014	0.018
D	5.900	6.100	0.232	0.240
D1	4.000		0.157	
E	8.500	8.700	0.335	0.343
e	1.500 TYP.		0.059 TYP.	
e1	2.900	3.100	0.114	0.122
L	13.800	14.200	0.543	0.559
Φ		1.600		0.063
h	0.000	0.380	0.000	0.015

TO-92MOD Suggested Pad Layout

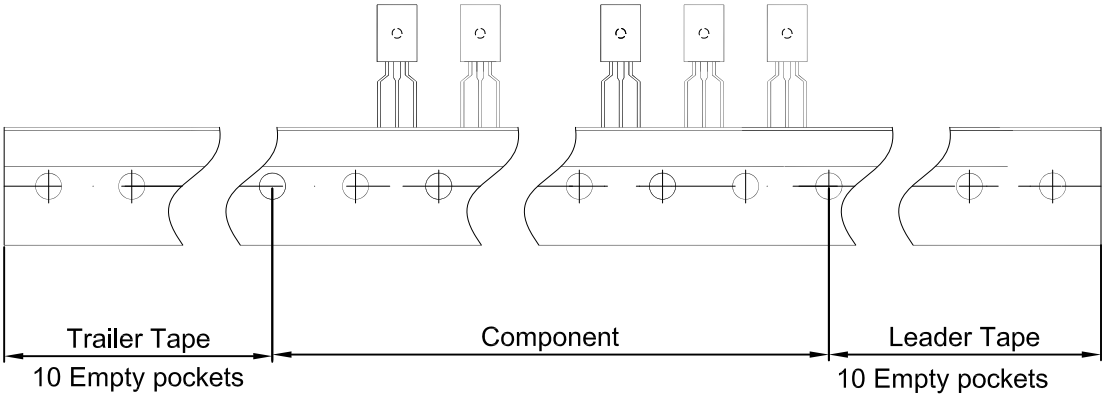


Note:
1.Controlling dimension:in millimeters.
2.General tolerance:±0.05mm.
3.The pad layout is for reference purposes only.

TO-92MOD PACKAGE TAPEING DIMENSION



Dimiensions are in millimeter								
A1	A	T	P	P0	P2	F1	F2	W
6.0	8.6	4.9	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-92MOD	2000 pcs	333×245×43	20,000 pcs	573×404×266