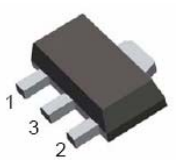
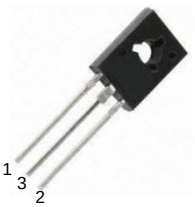
2SD882/P
NPN Silicon Epitaxial Planar Transistor

FEATURES

- Low saturation voltage.
- Excellent h_{FE} linearity and high h_{FE}.
- Less cramping space required due to small and thin Package and reducing the trouble for attachment to a radiator.



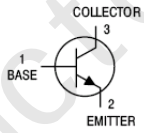
SOT-89



TO-126

APPLICATIONS

- Power amplifier application.



ORDERING INFORMATION

Type No.	Marking	Package Code
2SD882	D882	SOT-89
2SD882P	D882	TO-126

MAXIMUM RATING @ Ta=25℃ unless otherwise specified

Symbol	**Parameter**	**Value**	**Units**
V_{CBO}	Collector-Base Voltage	40	V
V_{CEO}	Collector-Emitter Voltage	30	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current -Continuous	3	A
P_C	Collector Dissipation	500	mW
T_j, T_{stg}	Junction and Storage Temperature	-55 to +150	℃

ELECTRICAL CHARACTERISTICS @ Ta=25℃ unless otherwise specified

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=100μA,I_E=0	40			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C=10mA,I_B=0	30			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=100μA,I_C=0	6			V
Collector cut-off current	I_{CBO}	V_{CB}=40V,I_E=0			1	μA
Collector cut-off current	I_{CEO}	V_{CE}=30V,I_B=0			1	μA
Emitter cut-off current	I_{EBO}	V_{EB}=3V,I_C=0			1	μA
DC current gain	h_{FE}	V_{CE}=2V,I_C=20mA V_{CE}=2V,I_C=1A	30 60	150 160	 400	
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=2A, I_B= 0.2A		0.3	0.5	V
Base-emitter saturation voltage	$V_{BE(sat)}$	I_C=2A, I_B=0.2A		1.0	2.0	V
Transition frequency	f_T	V_{CE}=5V, I_C= 0.1A		90		MHz
Collector output capacitance	C_{ob}	V_{CB}=10V,I_E=0,f=1MHz		45		pF

CLASSIFICATION OF h_{FE}

Rank	R	Q/O	P/Y	E/GR
Range	60-120	100-200	160-320	200-400

TYPICAL CHARACTERISTICS @ Ta=25℃ unless otherwise specified

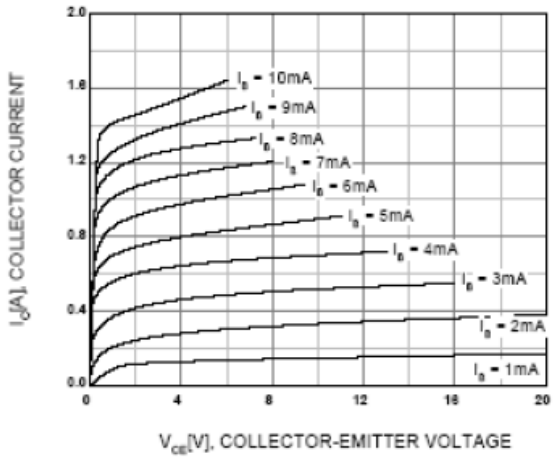


Figure 1. Static Characteristic

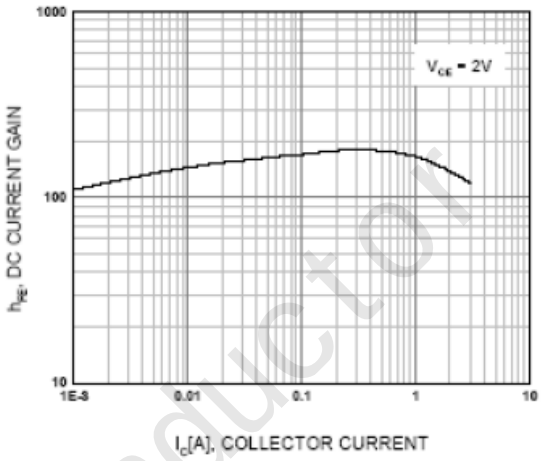


Figure 2. DC current Gain

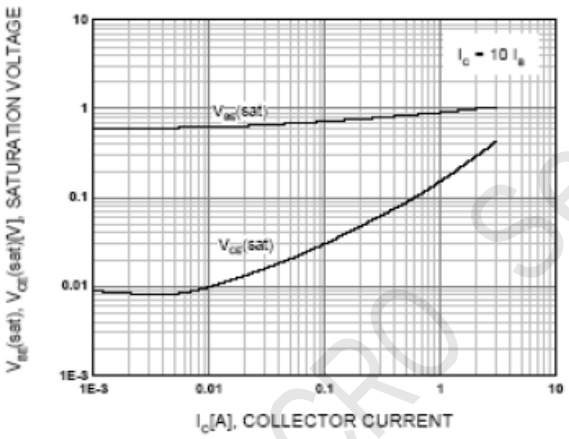


Figure 3. Base-Emitter Saturation Voltage Collector-Emitter Saturation Voltage

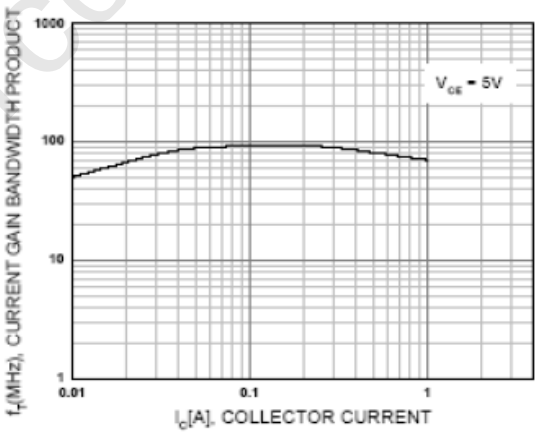
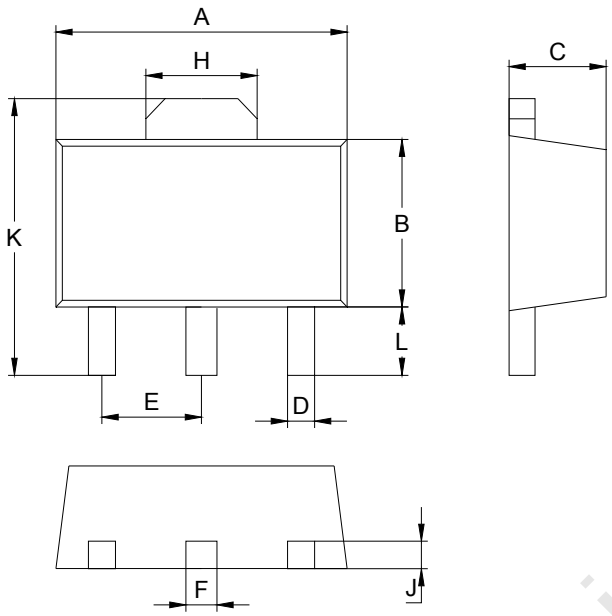


Figure 4. Current Gain Bandwidth Product

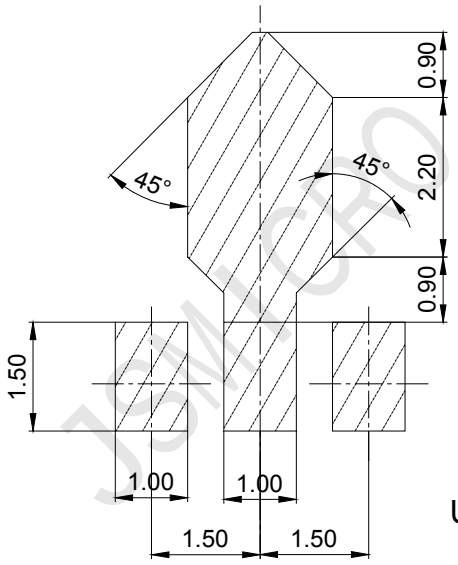
PACKAGE OUTLINE

Plastic surface mounted package SOT-89



SOT-89		
Dim	Min	Max
A	4.30	4.70
B	2.25	2.65
C	1.50 Typical	
D	0.40 Typical	
E	1.40	1.60
F	0.48 Typical	
H	1.60	1.80
J	0.40 Typical	
L	0.90	1.10
K	3.95	4.35
All Dimensions in mm		

SOLDERING FOOTPRINT



Unit:mm

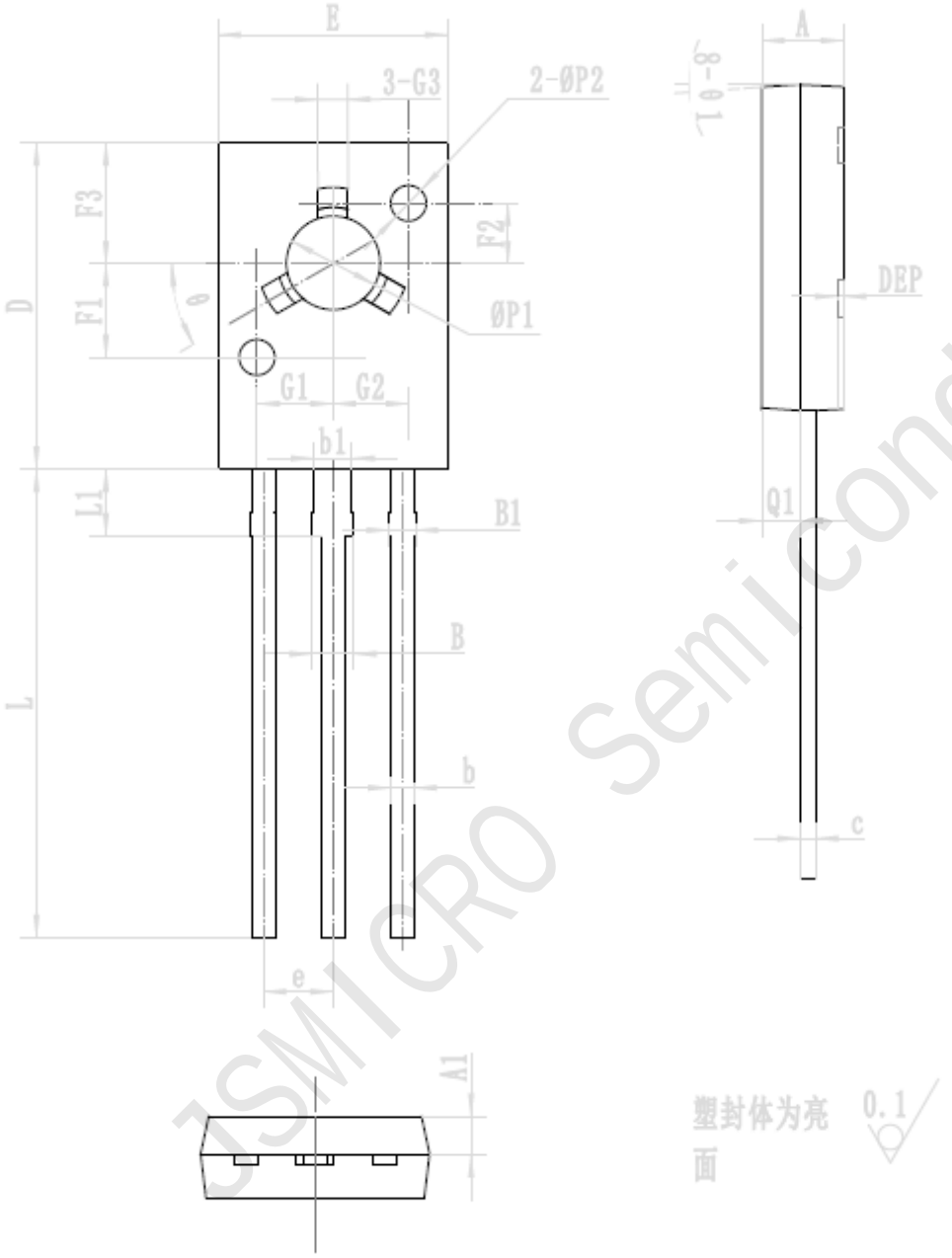
PACKAGE INFORMATION

Device	Package	Shipping
2SD882	SOT-89	1000/Tape&Reel
2SD882P	TO-126	200/Bag

PACKAGE OUTLINE

Plastic surface mounted package

TO-126



SYMBOL	MM		
	MIN	NOM	MAX
*A	2.60	2.70	2.80
A1	1.22	1.27	1.32
*b	0.71	0.76	0.81
b1	1.22	1.27	1.32
*B	1.27	1.37	1.45
*B1	0.71	0.76	0.88
*c	0.38	0.40	0.45
*D	10.70	10.80	10.90
*E	7.50	7.60	7.70
F1	2.90	3.00	3.10
F2	1.90	2.00	2.10
F3	3.90	4.00	4.10
G1	2.40	2.50	2.60
G2	2.40	2.50	2.60
G3	0.90	1.00	1.10
*e	2.24	2.29	2.34
*L	15.30	15.50	15.70
L1	2.10	2.20	2.30
Q1	1.17	1.27	1.37
θ	27°	30°	33°
θ1	1°	4°	7°
*ΦP1	3.00	3.10	3.20
ΦP2	1.15	1.20	1.25
DEP	0.10	0.15	0.20
带*为检验尺寸			