New Jersey Semi-Conductor Products, Inc.

20 STERN AVE.
SPRINGFIELD, NEW JERSEY 07081
U.S.A.

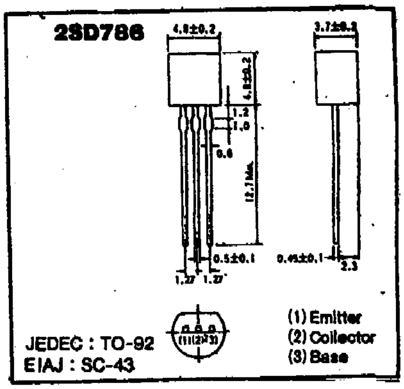
TELEPHONE: (973) 376-2922
(212) 227-6005
FAX: (973) 376-8960

2SD786

Epitaxial Planar NPN Silicon Transistor
Low r_{bb}'Low Noise Amp.

Epitaxial Planar NPN Silicon Transi

Dimensions (Unit : mm)



● Features

1) Ultra-low noise. (Good noise response at low R_g.): NF=2.5dB (Typ.) (at f=10Hz, R_g=10Ω, V_{CE}=6V, I_C=3mA)
2) Low base resistance: r_{bb}'=4Ω.
   Low voltage noise: e_n=0.55nV$\sqrt{Hz}$ (at 10Hz, 10mA)
3) Complementary pair with 2SB737.

bsolute Maximum Ratings (Ta=25℃)

Symbol	Limits	Unit
V_{CBO}	50	V
V_{CEO}	40	V
V_{EBO}	5	V
I_C	300	mA
P_C	250	mW
Tj	125	℃
Tstg	−55~125	℃

Electrical Characteristics (Ta=25℃)

Symbol	Min.	Typ.	Max.	Unit	Conditions
BV_{CEO}	40	—	—	V	I_C=1mA
BV_{CBO}	50	—	—	V	I_C=50 μA
BV_{EBO}	5	—	—	V	I_E=50 μA
I_{CBO}	—	—	0.5	μA	V_{CB} =30V
I_{EBO}	—	—	0.5	μA	V_{EB} =4V
h_{FE}	120	—	560	—	V_{CE} /I_C=6V/10mA
$V_{CE(sat)}$	—	0.03	0.5	V	I_C/I_B=50mA/5mA
f_T	—	100	—	MHz	V_{CE} =6V, I_E=−10mA
$r_{bb'}$	—	4	6	Ω	V_{CE} =6V, I_C=1mA, f=
NV_1	—	—	150	mV	FLAT AMP (G_V=80dB) V_{CE} =10V, I_C=1mA R_g=100kΩ

h_{FE}

Item	Q	R	S
h_{FE}	120~270	180~390	270~560

Quality Semi-Conductors