
2SD787, 2SD788

Silicon NPN Epitaxial

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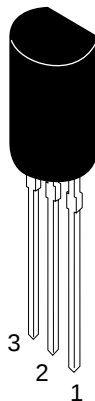
ADE-208-1139 (Z)
1st. Edition
Mar. 2001

Application

- Low frequency power amplifier
- Complementary pair with 2SB738 and 2SB739

Outline

TO-92MOD



1. Emitter
2. Collector
3. Base

2SD787, 2SD788

Absolute Maximum Ratings (Ta = 25°C)

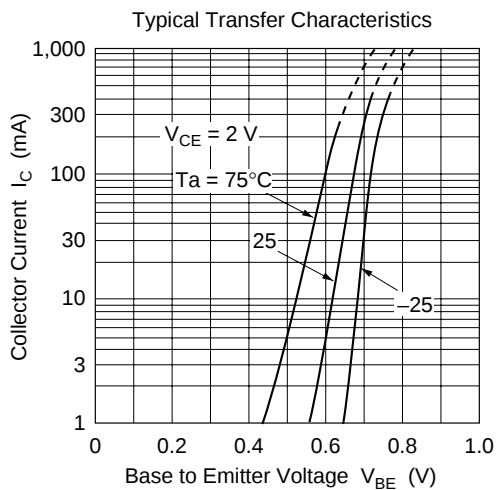
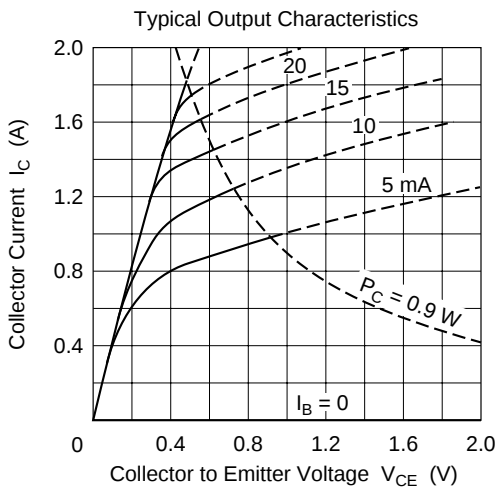
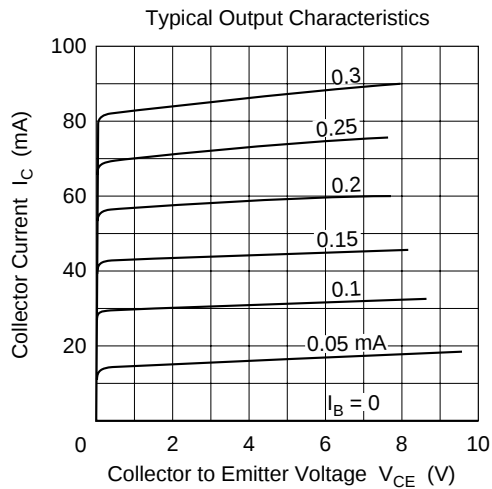
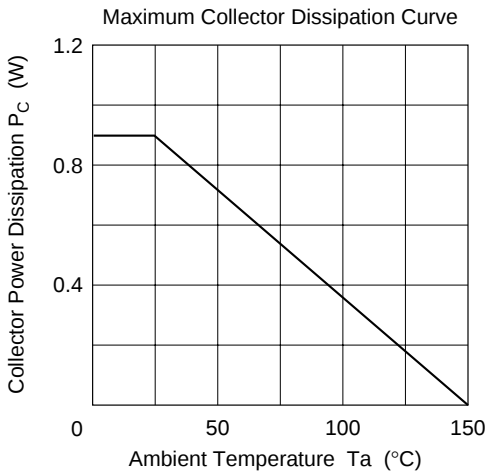
Item	Symbol	2SD787	2SD788	Unit
Collector to base voltage	V _{CBO}	20	20	V
Collector to emitter voltage	V _{CEO}	16	20	V
Emitter to base voltage	V _{EBO}	6	6	V
Collector current	I _C	2	2	A
Collector power dissipation	P _C	0.9	0.9	W
Junction temperature	T _j	150	150	°C
Storage temperature	T _{stg}	−55 to +150	−50 to +150	°C

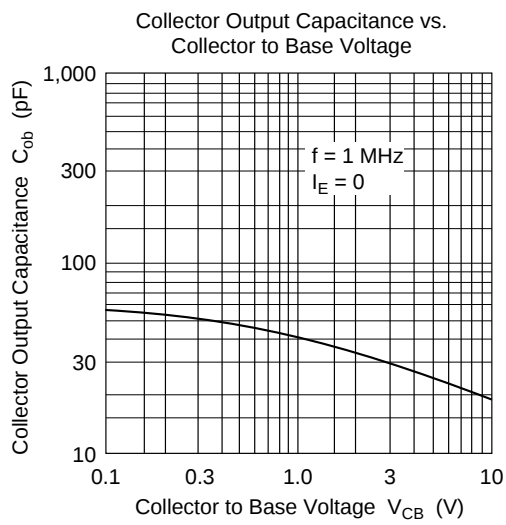
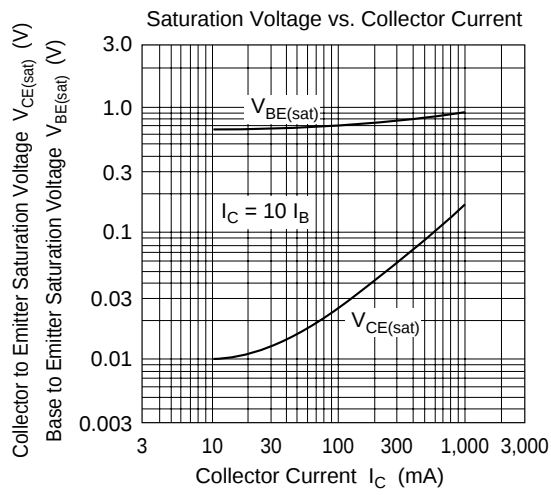
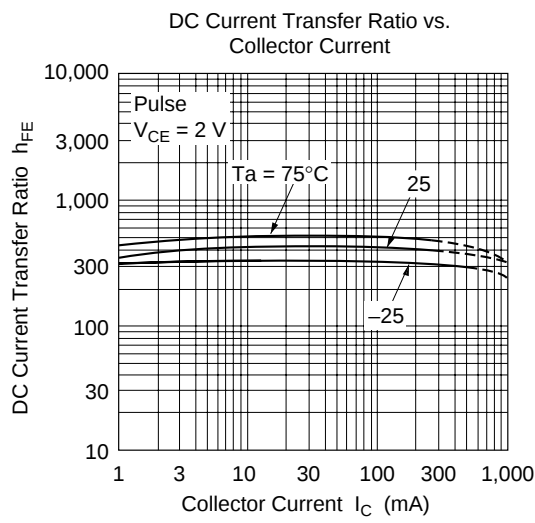
Electrical Characteristics (Ta = 25°C)

Item	Symbol	2SD787			2SD788			Unit	Test conditions
		Min	Typ	Max	Min	Typ	Max		
Collector to base breakdown voltage	V _{(BR)CBO}	20	—	—	20	—	—	V	I _C = 10 μA, I _E = 0
Collector to emitter breakdown voltage	V _{(BR)CEO}	16	—	—	20	—	—	V	I _C = 1 mA, R _{BE} = ∞
Emitter to base breakdown voltage	V _{(BR)EBO}	6	—	—	6	—	—	V	I _E = 10 μA, I _C = 0
Collector cutoff current	I _{CBO}	—	—	2	—	—	2	μA	V _{CB} = 16 V, I _E = 0
Emitter cutoff current	I _{EBO}	—	—	0.2	—	—	0.2	μA	V _{EB} = 6 V, I _C = 0
DC current transfer ratio	h _{FE} *1	100	—	800	100	—	800		V _{CE} = 2 V, I _C = 0.1 A
Collector to emitter saturation voltage	V _{CE(sat)}	—	—	0.3	—	—	0.3	V	I _C = 1 A, I _B = 0.1 A
Gain bandwidth product	f _T	—	100	—	—	100	—	MHz	V _{CE} = 2 V, I _C = 10 mA
Collector output capacitance	Cob	—	20	—	—	20	—	pF	V _{CB} = 10 V, I _E = 0, f = 1 MHz

Note: 1. The 2SD787 and 2SD788 are grouped by h_{FE} as follows.

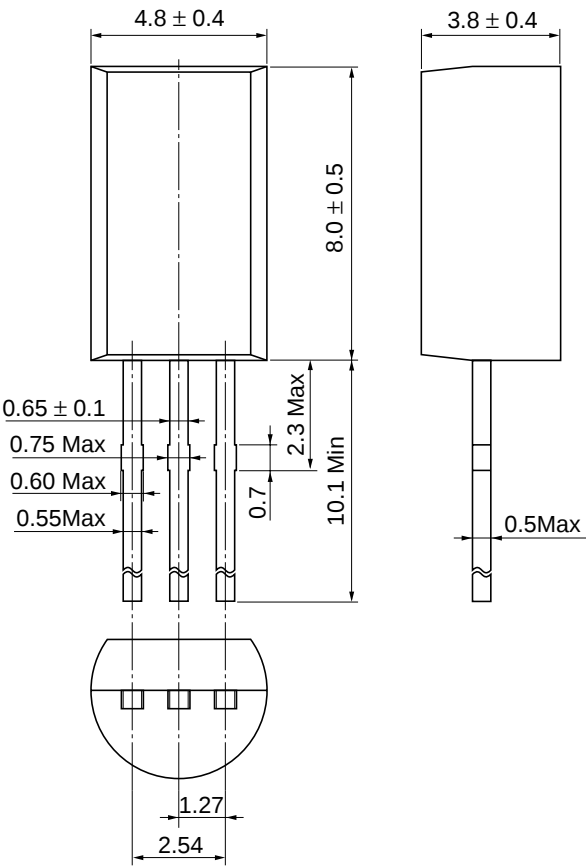
B	C	D	E
100 to 200	160 to 320	250 to 500	400 to 800





Package Dimensions

As of January, 2001
Unit: mm



Hitachi Code	TO-92 Mod
JEDEC	—
EIAJ	Conforms
Mass (reference value)	0.35 g

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