2SD2491, 2SD2492

Silicon NPN Epitaxial

HITACHI

Application

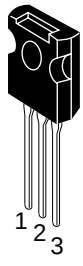
Low frequency high voltage amplifier

Features

- Isolated package
  TO-126FM

Outline

TO-126FM



1. Emitter
2. Collector
3. Base

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Absolute Maximum Ratings (Ta = 25°C)

Item	Symbol	Ratings 2SD2491	Ratings 2SD2492	Unit
Collector to base voltage	V_{CBO}	160	200	V
Collector to emitter voltage	V_{CEO}	160	200	V
Emitter to base voltage	V_{EBO}	5	5	V
Collector current	I_C	100	100	mA
Collector power dissipation	P_C	1.35	1.35	W
Collector power dissipation	P_C*[1]	8	8	W
Junction temperature	Tj	150	150	°C
Storage temperature	Tstg	–55 to +150	–55 to +150	°C

Note: 1. Value at T_C = 25°C

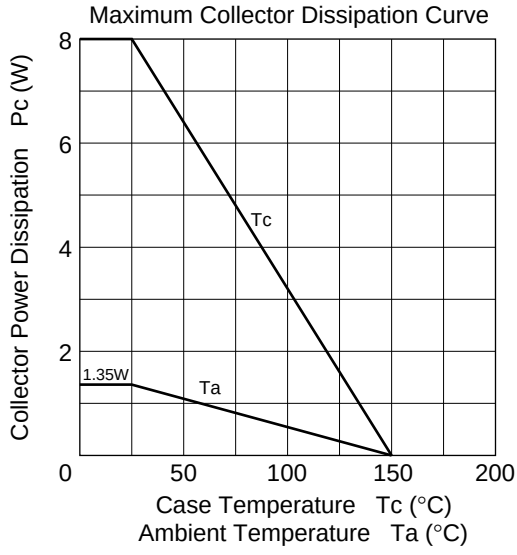
Electrical Characteristics (Ta = 25°C)

Item	Symbol	2SD2491 Min	2SD2491 Typ	2SD2491 Max	2SD2492 Min	2SD2492 Typ	2SD2492 Max	Unit	Test conditions
Collector to base breakdown voltage	$V_{(BR)CBO}$	160	—	—	200	—	—	V	I_C = 10 µA, I_E = 0
Collector to emitter breakdown voltage	$V_{(BR)CEO}$	160	—	—	200	—	—	V	I_C = 1 mA, R_{BE} = ∞
Emitter to base breakdown voltage	$V_{(BR)EBO}$	5	—	—	5	—	—	V	I_E = 10 µA, I_C = 0
Collector cutoff current	I_{CBO}	—	—	10	—	—	—	µA	V_{CB} = 140 V, I_E = 0
		—	—	—	—	—	10	µA	V_{CB} = 160 V, I_E = 0
DC current transfer ratio	h_{FE1}*[1]	60	—	320	60	—	320		V_{CE} = 5 V, I_C = 10 mA
DC current transfer ratio	h_{FE2}	30	—	—	30	—	—		V_{CE} = 5 V, I_C = 1 mA
Base to emitter voltage	V_{BE}	—	—	1.5	—	—	1.5	V	V_{CE} = 5 V, I_C = 10 mA
Collector to emitter saturation voltage	$V_{CE(sat)}$	—	—	2	—	—	2	V	I_C = 30 mA, I_B = 3 mA
Gain bandwidth product	f_T	—	140	—	—	140	—	MHz	V_{CE} = 5 V, I_C = 10 mA
Collector output capacitance	Cob	—	3.8	—	—	3.8	—	pF	V_{CB} = 10 V, I_E = 0 f = 1 MHz

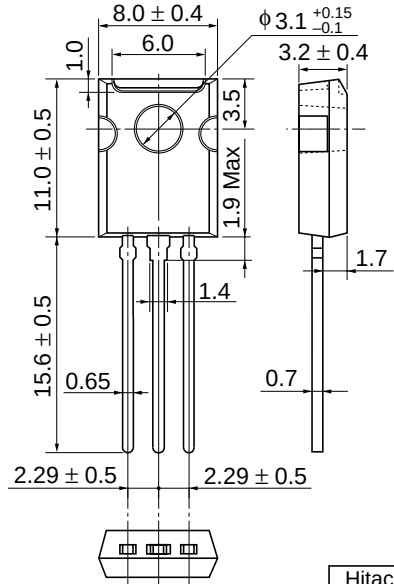
Note: 1. The 2SD2491 and 2SD2492 are grouped by h_{FE1} and its specification is as follows.

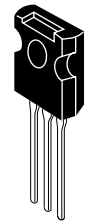
B	C	D
60 to 120	100 to 200	160 to 320

See characteristic curves of 2SD1609, 2SD1610.



Unit: mm





Hitachi Code	TO-126FM
JEDEC	—
EIAJ	—
Weight (reference value)	0.87 g

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