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# 2SD755, 2SD756, 2SD756A

Silicon NPN Epitaxial

# HITACHI

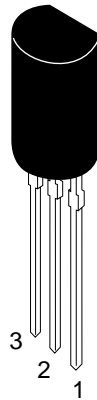
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## Application

- Low frequency high voltage amplifier
- Complementary pair with 2SB715, 2SB716 and 2SB716A

## Outline

TO-92MOD



1. Emitter
2. Collector
3. Base

2SD755, 2SD756, 2SD756A

Absolute Maximum Ratings (Ta = 25°C)

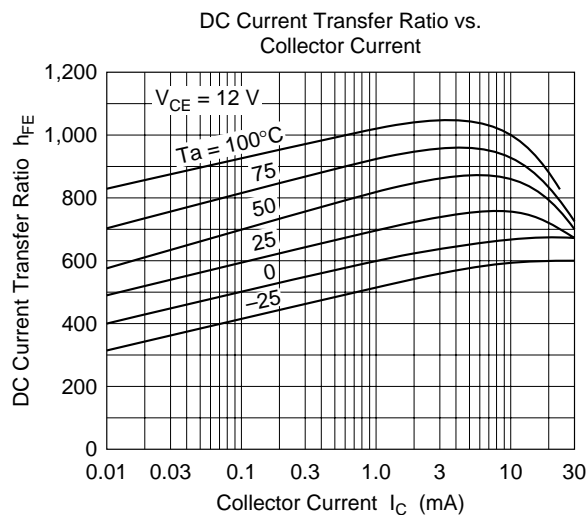
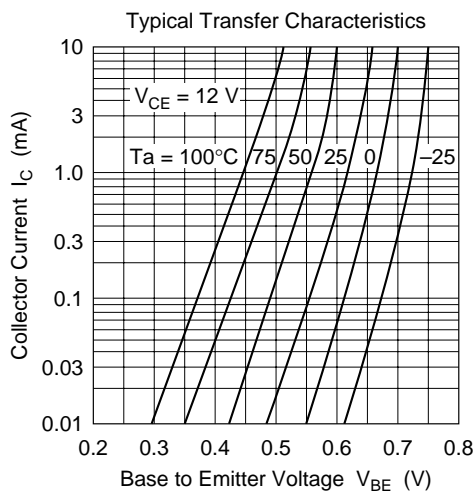
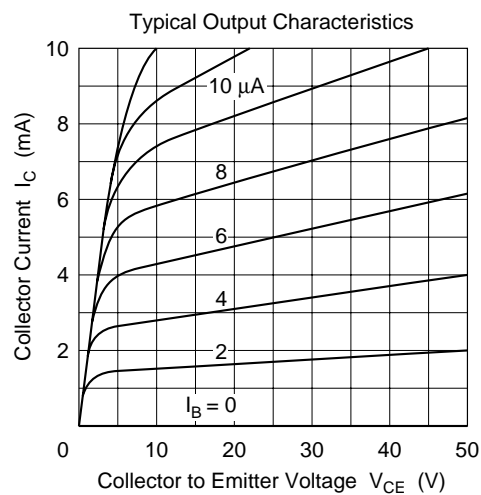
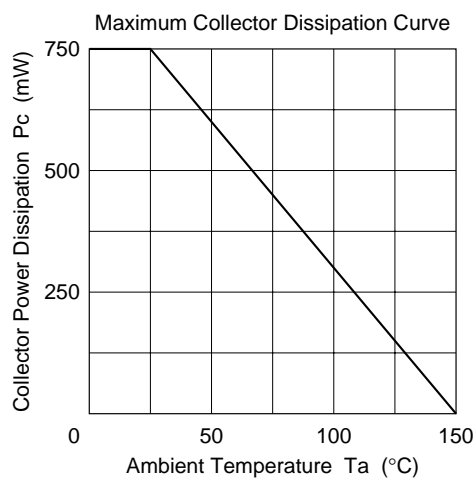
Item	Symbol	2SD755	2SD756	2SD756A	Unit
Collector to base voltage	V <sub>CBO</sub>	100	120	140	V
Collector to emitter voltage	V <sub>CEO</sub>	100	120	140	V
Emitter to base voltage	V <sub>EBO</sub>	5	5	5	V
Collector current	I <sub>C</sub>	50	50	50	mA
Collector power dissipation	P <sub>C</sub>	750	750	750	mW
Junction temperature	T <sub>j</sub>	150	150	150	°C
Storage temperature	T <sub>stg</sub>	−55 to +150	−55 to +150	−55 to +150	°C

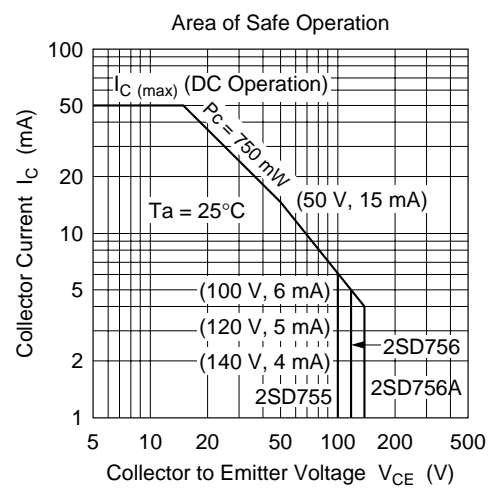
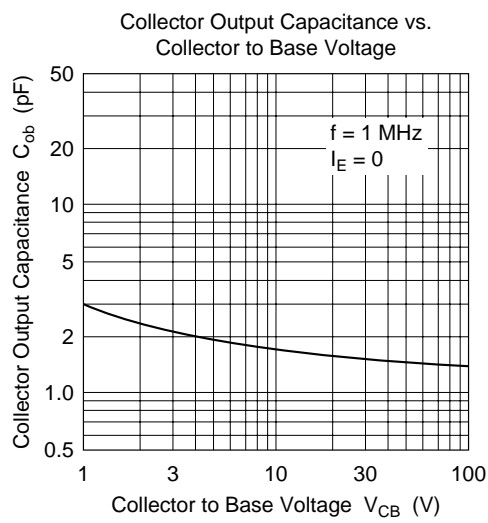
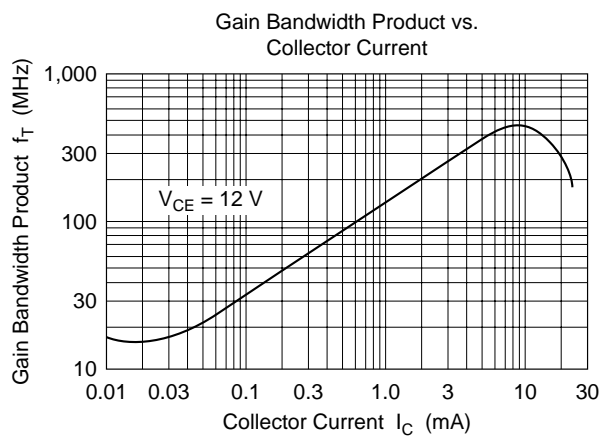
Electrical Characteristics (Ta = 25°C)

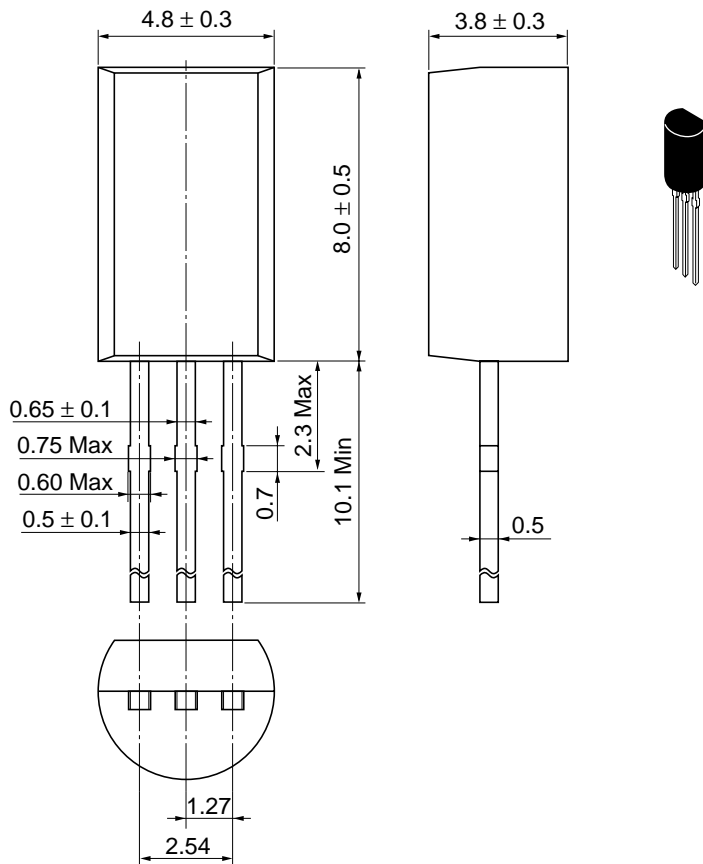
Item	Symbol	2SD755			2SD756			2SD756A			Unit	Test conditions
		Min	Typ	Max	Min	Typ	Max	Min	Typ	Max		
Collector to emitter breakdown voltage	V <sub>(BR)CEO</sub>	100	—	—	120	—	—	140	—	—	V	I <sub>C</sub> = 1 mA, R <sub>BE</sub> = ∞
Collector to base breakdown voltage	V <sub>(BR)CBO</sub>	100	—	—	120	—	—	140	—	—	V	I <sub>C</sub> = 10 μA, I <sub>E</sub> = 0
Collector cutoff current	I <sub>CBO</sub>	—	—	0.5	—	—	0.5	—	—	0.5	μA	V <sub>CB</sub> = 100 V, I <sub>E</sub> = 0
DC current transfer ratio	h <sub>FE1</sub> <sup>*1</sup>	250	—	1200	250	—	800	250	—	500		V <sub>CE</sub> = 12 V, I <sub>C</sub> = 2 mA
	h <sub>FE2</sub>	125	—	—	125	—	—	125	—	—		V <sub>CE</sub> = 12 V, I <sub>C</sub> = 10 mA
Base to emitter voltage	V <sub>BE</sub>	—	—	0.75	—		0.75	—	—	0.75	V	V <sub>CE</sub> = 12 V, I <sub>C</sub> = 2 mA
Collector to emitter saturation voltage	V <sub>CE(sat)</sub>	—	—	0.2	—	—	0.2	—	—	0.2	V	I <sub>C</sub> = 10 mA, I <sub>B</sub> = 1 mA
Gain bandwidth product	f <sub>T</sub>	—	350	—	—	350	—	—	350	—	MHz	V <sub>CE</sub> = 12 V, I <sub>C</sub> = 5 mA
Collector output capacitance	Cob	—	1.6	—	—	1.6	—	—	1.6	—	pF	V <sub>CB</sub> = 25 V, I <sub>E</sub> = 0, f = 1 MHz

Note: 1. The 2SD755, 2SD756 and 2SD756A are grouped by h<sub>FE1</sub> as follows.

	D	E	F
2SD755	250 to 500	400 to 800	600 to 1200
2SD756	250 to 500	400 to 800	—
2SD756A	250 to 500	—	—







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

## Cautions

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