
2SD755, 2SD756, 2SD756A

Silicon NPN Epitaxial

HITACHI

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_{CBO}	100	120	140	V
Collector to emitter voltage	V_{CEO}	100	120	140	V
Emitter to base voltage	V_{EBO}	5	5	5	V
Collector current	I_C	50	50	50	mA
Collector power dissipation	P_C	750	750	750	mW
Junction temperature	T_j	150	150	150	°C
Storage temperature	T_{stg}	-55 to +150	-55 to +150	-55 to +150	°C

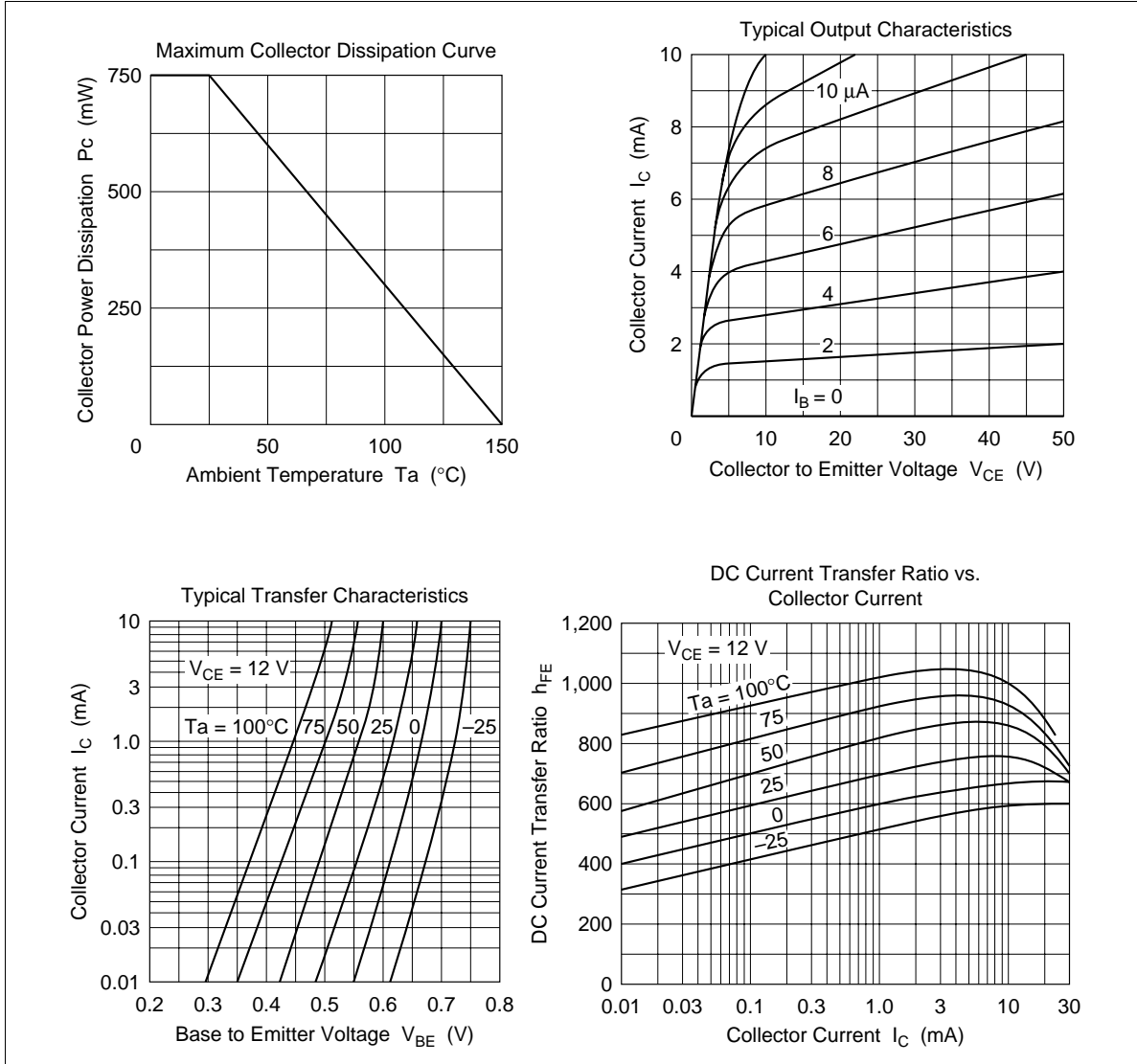
Electrical Characteristics (Ta = 25°C)

Item	Symbol	2SD755			2SD756			2SD756A			Unit	Test conditions
		Min	Typ	Max	Min	Typ	Max	Min	Typ	Max		
Collector to emitter breakdown voltage	$V_{(BR)CEO}$	100	—	—	120	—	—	140	—	—	V	$I_C = 1 \text{ mA}$, $R_{BE} = \infty$
Collector to base breakdown voltage	$V_{(BR)CBO}$	100	—	—	120	—	—	140	—	—	V	$I_C = 10 \text{ } \mu\text{A}$, $I_E = 0$
Collector cutoff current	I_{CBO}	—	—	0.5	—	—	0.5	—	—	0.5	μA	$V_{CB} = 100 \text{ V}$, $I_E = 0$
DC current transfer ratio	h_{FE1}^{*1}	250	—	1200	250	—	800	250	—	500		$V_{CE} = 12 \text{ V}$, $I_C = 2 \text{ mA}$
	h_{FE2}	125	—	—	125	—	—	125	—	—		$V_{CE} = 12 \text{ V}$, $I_C = 10 \text{ mA}$
Base to emitter voltage	V_{BE}	—	—	0.75	—	—	0.75	—	—	0.75	V	$V_{CE} = 12 \text{ V}$, $I_C = 2 \text{ mA}$
Collector to emitter saturation voltage	$V_{CE(sat)}$	—	—	0.2	—	—	0.2	—	—	0.2	V	$I_C = 10 \text{ mA}$, $I_B = 1 \text{ mA}$
Gain bandwidth product	f_T	—	350	—	—	350	—	—	350	—	MHz	$V_{CE} = 12 \text{ V}$, $I_C = 5 \text{ mA}$
Collector output capacitance	C_{ob}	—	1.6	—	—	1.6	—	—	1.6	—	pF	$V_{CB} = 25 \text{ V}$, $I_E = 0$, $f = 1 \text{ MHz}$

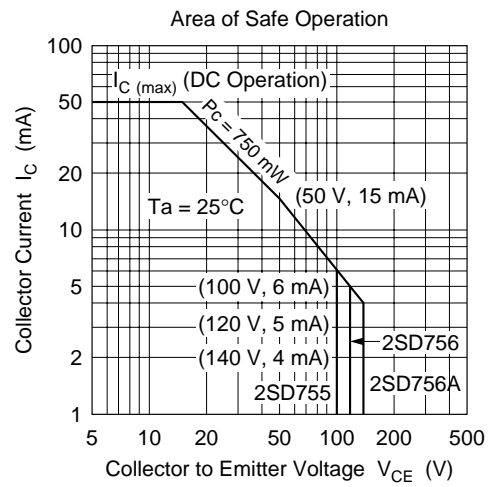
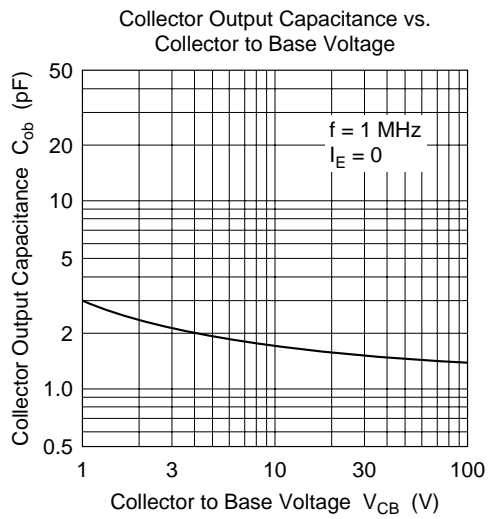
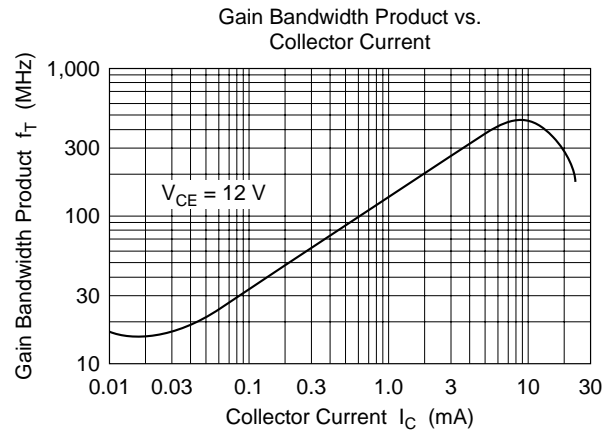
Note: 1. The 2SD755, 2SD756 and 2SD756A are grouped by h_{FE1} as follows.

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

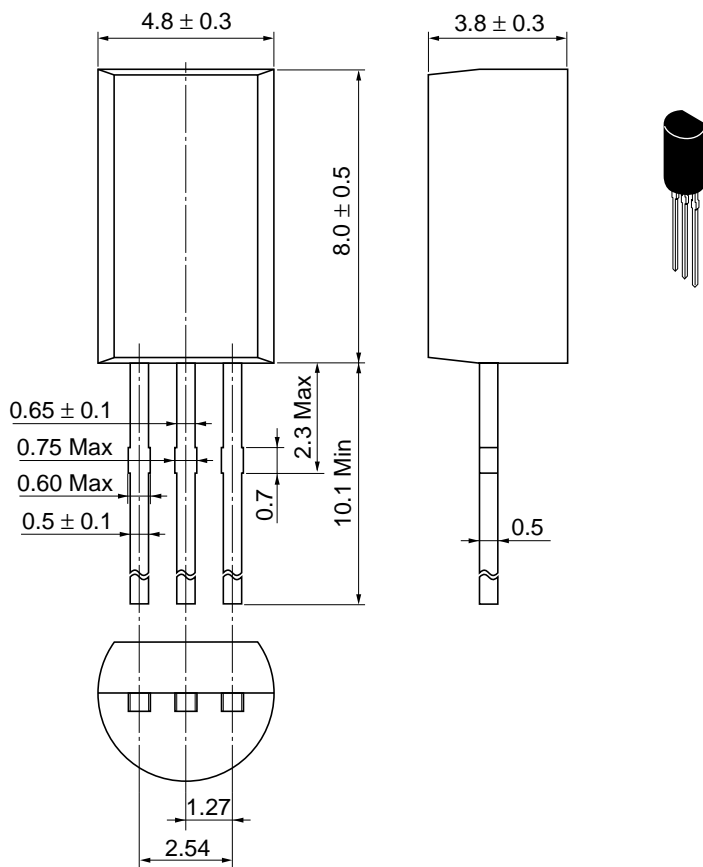
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Unit: mm



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HITACHI

Hitachi, Ltd.

Semiconductor & Integrated Circuits.
Nippon Bldg., 2-6-2, Ohte-machi, Chiyoda-ku, Tokyo 100-0004, Japan
Tel: Tokyo (03) 3270-2111 Fax: (03) 3270-5109

URL NorthAmerica : <http://semiconductor.hitachi.com/>
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For further information write to:

Hitachi Semiconductor
(America) Inc.
179 East Tasman Drive,
San Jose, CA 95134
Tel: <1> (408) 433-1990
Fax: <1> (408) 433-0223

Hitachi Europe GmbH
Electronic components Group
Dornacher StraÙe 3
D-85622 Feldkirchen, Munich
Germany
Tel: <49> (89) 9 9180-0
Fax: <49> (89) 9 29 30 00

Hitachi Europe Ltd.
Electronic Components Group.
Whitebrook Park
Lower Cookham Road
Maidenhead
Berkshire SL6 8YA, United Kingdom
Tel: <44> (1628) 585000
Fax: <44> (1628) 778322

Hitachi Asia Pte. Ltd.
16 Collyer Quay #20-00
Hitachi Tower
Singapore 049318
Tel: 535-2100
Fax: 535-1533

Hitachi Asia Ltd.
Taipei Branch Office
3F, Hung Kuo Building, No.167,
Tun-Hwa North Road, Taipei (105)
Tel: <886> (2) 2718-3666
Fax: <886> (2) 2718-8180

Hitachi Asia (Hong Kong) Ltd.
Group III (Electronic Components)
7/F., North Tower, World Finance Centre,
Harbour City, Canton Road, Tsim Sha Tsui,
Kowloon, Hong Kong
Tel: <852> (2) 735 9218
Fax: <852> (2) 730 0281
Telex: 40815 HITEC HX