
2SD2122(L)/(S), 2SD2123(L)/(S)

Silicon NPN Epitaxial

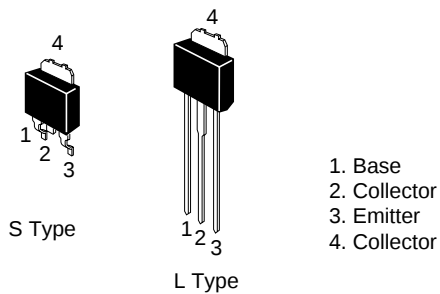
HITACHI

Application

Low frequency power amplifier complementary pair with 2SB1409(L)/(S)

Outline

DPAK



2SD2122(L)/(S), 2SD2123(L)/(S)

Absolute Maximum Ratings (Ta = 25°C)

Item	Symbol	Ratings		Unit
		2SD2122(L)/(S)	2SD2123(L)/(S)	
Collector to base voltage	V _{CBO}	180	180	V
Collector to emitter voltage	V _{CEO}	120	160	V
Emitter to base voltage	V _{EBO}	5	5	V
Collector current	I _C	1.5	1.5	A
Collector peak current	I _{C(peak)}	3	3	A
Collector power dissipation	P _C ^{*1}	18	18	W
Junction temperature	T _j	150	150	°C
Storage temperature	T _{stg}	−55 to +150	−55 to +150	°C

Note: 1. Value at T_C = 25°C.

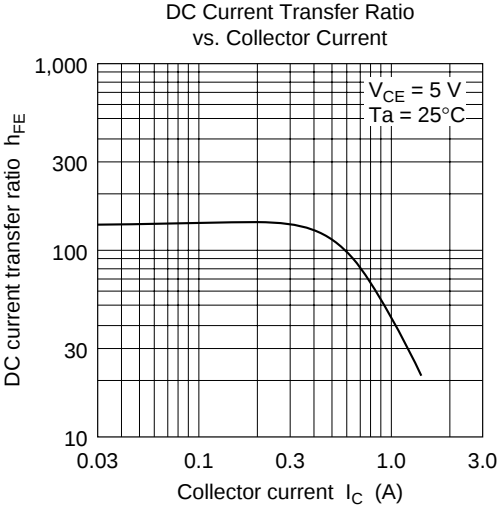
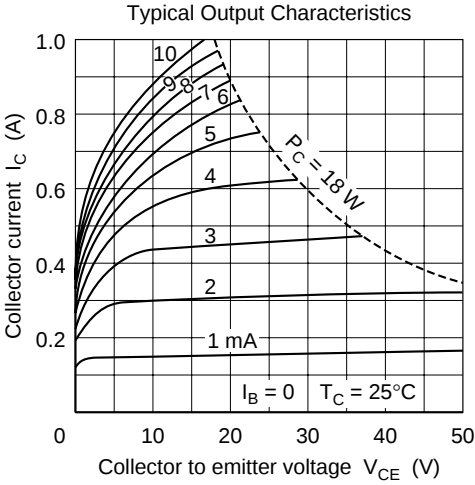
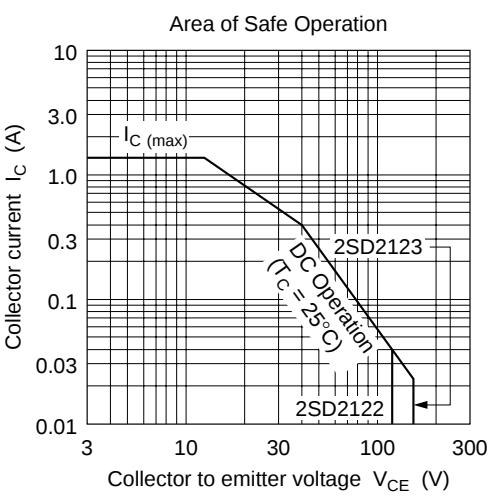
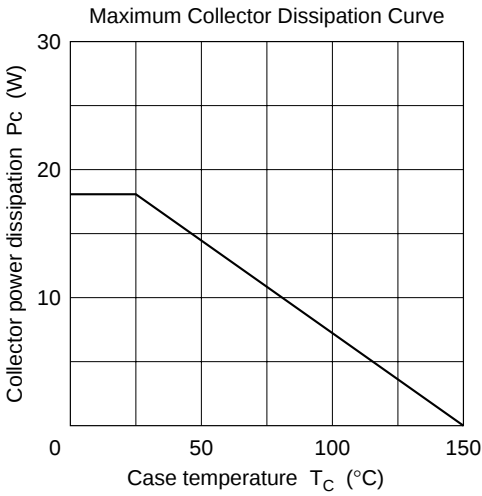
Electrical Characteristics (Ta = 25°C)

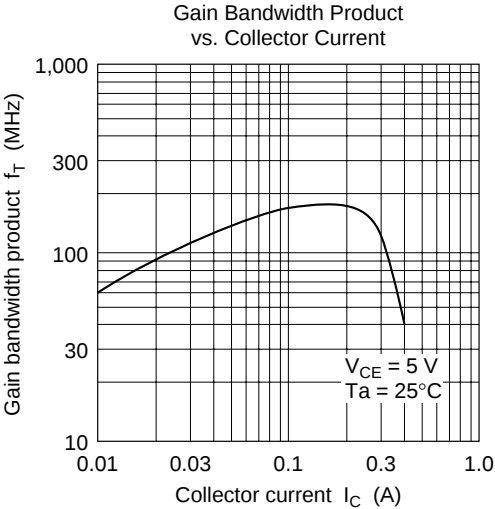
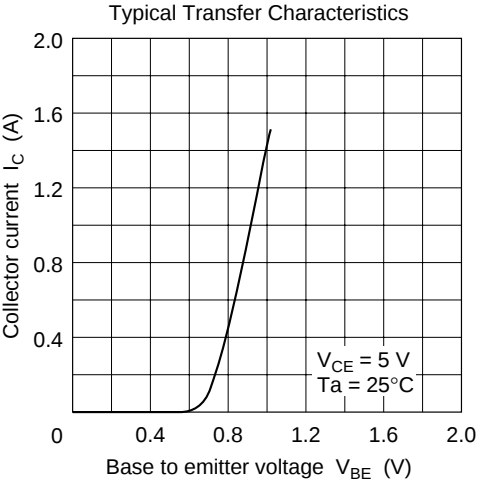
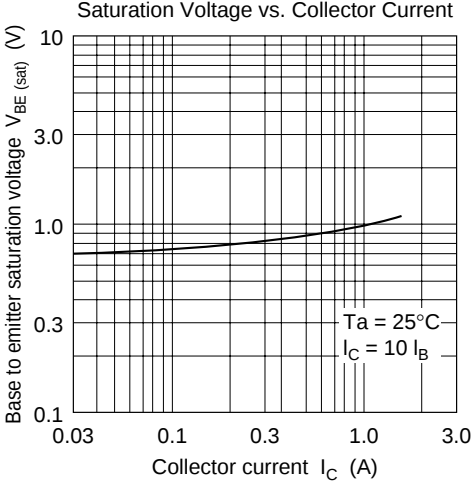
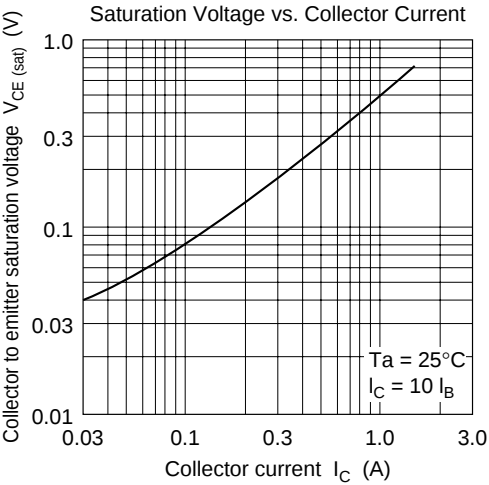
Item	Symbol	2SD2122(L)/(S)			2SD2123(L)/(S)			Unit	Test conditions
		Min	Typ	Max	Min	Typ	Max		
Collector to base breakdown voltage	V _{(BR)CBO}	180	—	—	180	—	—	V	I _C = 1 mA, I _E = 0
Collector to emitter breakdown voltage	V _{(BR)CEO}	120	—	—	160	—	—	V	I _C = 10 mA, R _{BE} = ∞
Emitter to base breakdown voltage	V _{(BR)EBO}	5	—	—	5	—	—	V	I _E = 1 mA, I _C = 0
Collector cutoff current	I _{CBO}	—	—	10	—	—	10	μA	V _{CB} = 160 V, I _E = 0
DC current transfer ratio	h _{FE1} ^{*2}	60	—	200	60	—	200	A	V _{CE} = 5 V, I _C = 150 mA ^{*1}
	h _{FE2}	30	—	—	30	—	—		V _{CE} = 5 V, I _C = 500 mA ^{*1}
Collector to emitter saturation voltage	V _{CE(sat)}	—	—	1	—	—	1	V	I _C = 500 mA, I _B = 50 mA ^{*1}
Base to emitter voltage	V _{BE}	—	—	1.5	—	—	1.5	V	V _{CE} = 5 V, I _C = 150 mA ^{*1}
Gain bandwidth product	f _T	—	180	—	—	180	—	MHz	V _{CE} = 5 V, I _C = 150 mA ^{*1}
Collector output capacitance	C _{ob}	—	14	—	—	14	—	pF	V _{CB} = 10 V, I _E = 0, f = 1 MHz

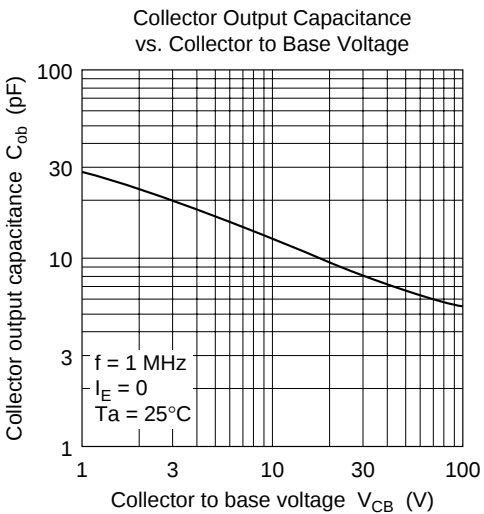
Notes: 1. Pulse test

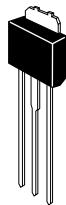
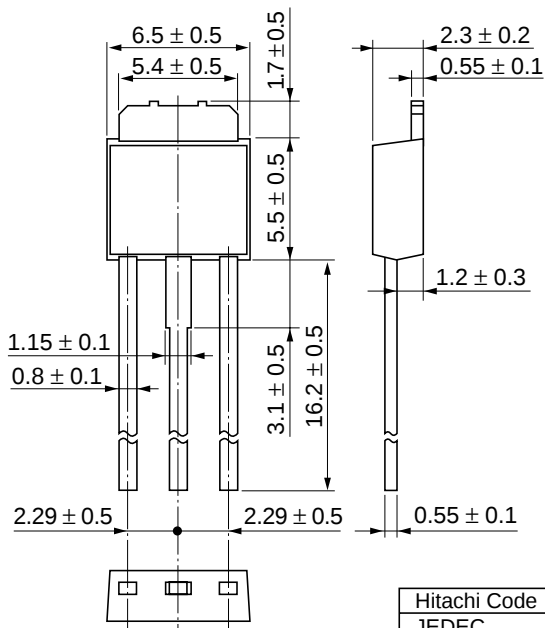
2. The 2SD2122(L)/(S) and 2SD2123(L)/(S) are grouped by h_{FE1} as follows.

B	C
60 to 120	100 to 200









Hitachi Code	DPAK (L)-(1)
JEDEC	—
EIAJ	Conforms
Weight (reference value)	0.42 g

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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

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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 Straße 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
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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
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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
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