

2SA743, 2SA743A

Silicon PNP Epitaxial

HITACHI

Application

Low frequency power amplifier complementary pair with 2SC1212 and 2SC1212A

Outline

TO-126 MOD



1. Emitter
2. Collector
3. Base

Absolute Maximum Ratings (Ta = 25°C)

Item	Symbol	Ratings		Unit
		2SA743	2SA743A	
Collector to base voltage	V_{CBO}	-50	-80	V
Collector to emitter voltage	V_{CEO}	-50	-80	V
Emitter to base voltage	V_{EBO}	-4	-4	V
Collector current	I_C	-1	-1	A
Collector power dissipation	P_C	0.75	0.75	W
	P_C^{*1}	8	8	
Junction temperature	T_j	150	150	°C
Storage temperature	T_{stg}	-55 to +150	-55 to +150	°C

Note: 1. Value at $T_C = 25^\circ\text{C}$.

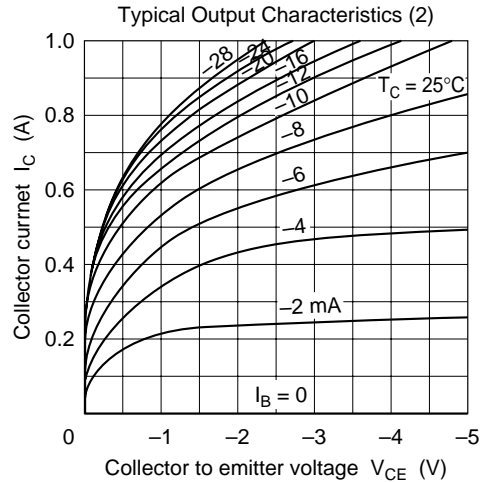
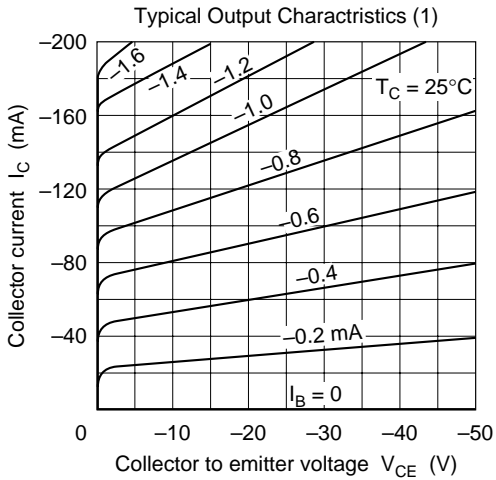
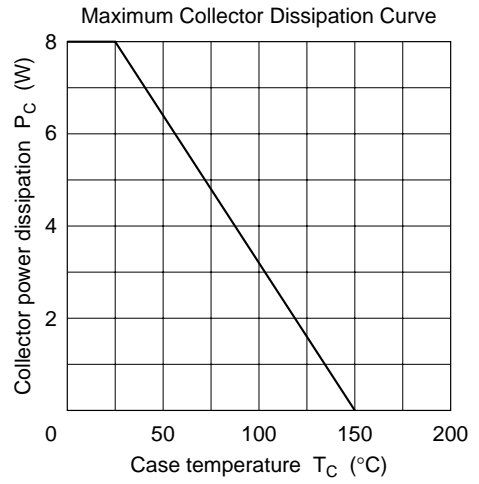
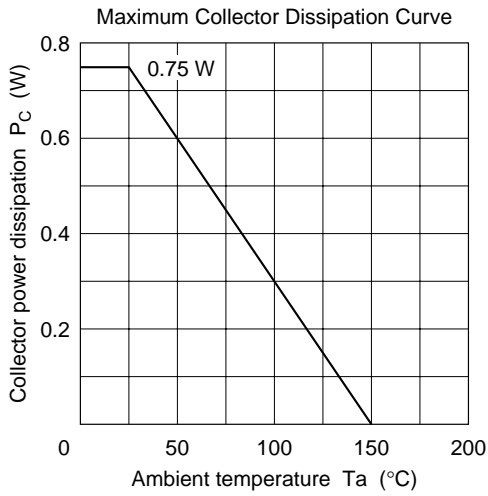
2SA743, 2SA743A

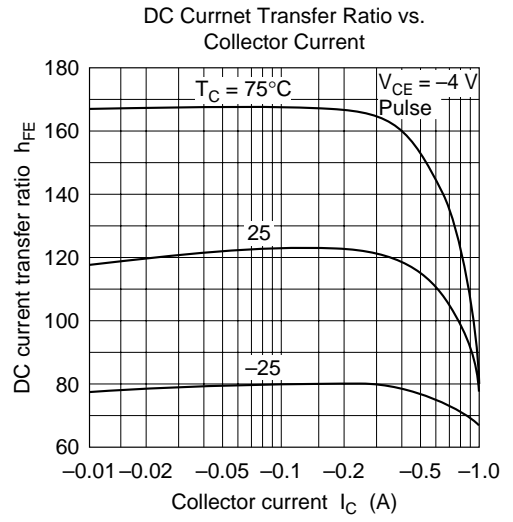
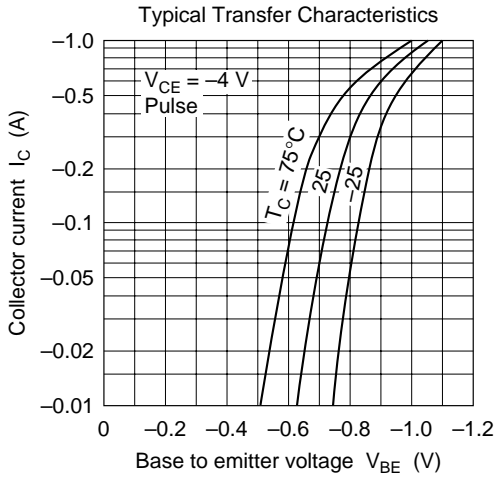
Electrical Characteristics (Ta = 25°C)

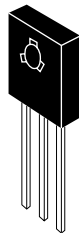
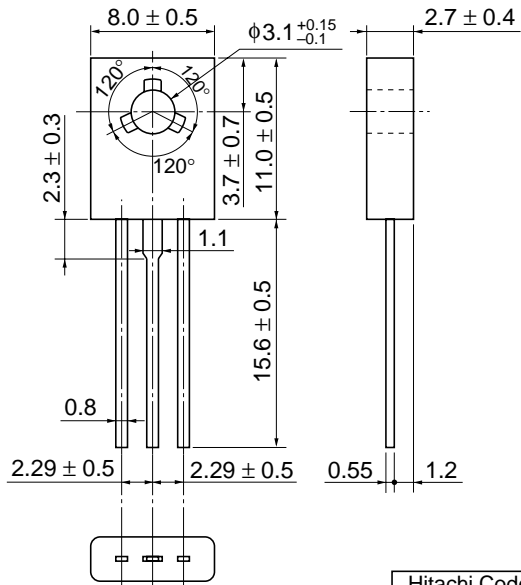
Item	Symbol	2SA743			2SA743A			Unit	Test conditions
		Min	Typ	Max	Min	Typ	Max		
Collector to base breakdown voltage	$V_{(BR)CBO}$	-50	—	—	-80	—	—	V	$I_C = -1 \text{ mA}, I_E = 0$
Collector to emitter breakdown voltage	$V_{(BR)CEO}$	-50	—	—	-80	—	—	V	$I_C = -10 \text{ mA}, R_{BE} = \infty$
Emitter to base breakdown voltage	$V_{(BR)EBO}$	-4	—	—	-4	—	—	V	$I_E = -1 \text{ mA}, I_C = 0$
Collector cutoff current	I_{CER}	—	—	-20	—	—	—	μA	$V_{CE} = -50 \text{ V}, R_{BE} = 1 \text{ k}\Omega$
	I_{CER}	—	—	—	—	—	-20		$V_{CE} = -80 \text{ V}, R_{BE} = 1 \text{ k}\Omega$
DC current transfer ratio	h_{FE}^{*1}	60	120	200	60	120	200		$V_{CE} = -4 \text{ V}, I_C = -50 \text{ mA}$
	h_{FE}	20	—	—	20	—	—		$V_{CE} = -4 \text{ V}, I_C = -1 \text{ A}$ (pulse)
Base to emitter voltage	V_{BE}	—	-0.65	-1.0	—	-0.65	1.0	V	$V_{CE} = -4 \text{ V}, I_C = -50 \text{ mA}$
Collector to emitter saturation voltage	$V_{CE(sat)}$	—	-0.75	-1.5	—	-0.75	-1.5	V	$I_C = -1 \text{ A}, I_B = -0.1 \text{ A}$
Gain bandwidth product	f_T	—	120	—	—	120	—	MHz	$V_{CE} = -4 \text{ V}, I_C = -30 \text{ mA}$

Note: 1. The 2SA743 and 2SA743A is grouped by h_{FE} as follows.

B	C
60 to 120	100 to 200







Hitachi Code	TO-126 Mod
JEDEC	—
EIAJ	—
Weight (reference value)	0.67 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

URL North America : <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 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

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

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