2SD1133, 2SD1134

Silicon NPN Triple Diffused

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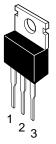
ADE-208-905 (Z) 1st. Edition Sep. 2000

Application

Low frequency power amplifier complementary pair with 2SB857 and 2SB858

Outline

TO-220AB



- 1. Base
- 2. Collector (Flange)
- Emitter

Absolute Maximum Ratings (Ta = 25°C)

		Ratings			
Item	Symbol	2SD1133	2SD1134	Unit	
Collector to base voltage	V_{CBO}	70	70	V	
Collector to emitter voltage	V _{CEO}	50	60	V	
Emitter to base voltage	V _{EBO}	5	5	V	
Collector current	I _c	4	4	A	
Collector peak current	I _{C(peak)}	8	8	A	
Collector power dissipation	P _c *1	40	40	W	
Junction temperature	Tj	150	150	°C	
Storage temperature	Tstg	-45 to +150	-45 to +150	°C	

Note: 1. Value at $T_c = 25$ °C.



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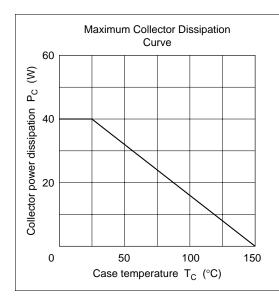
Electrical Characteristics ($Ta = 25^{\circ}C$)

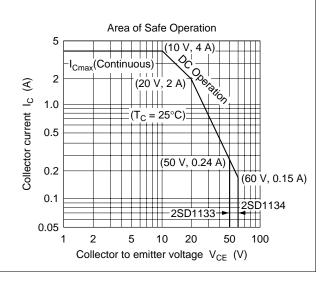
		2SD1	133		2SD1134				
Item	Symbol	Min	Тур	Max	Min	Тур	Max	Unit	Test conditions
Collector to base breakdown voltage	$V_{(BR)CBO}$	70	_	_	70	_	_	V	$I_{\rm C} = 10 \ \mu \text{A}, \ I_{\rm E} = 0$
Collector to emitter breakdown voltage	$V_{(BR)CEO}$	50	_	_	60	_	_	V	$I_{\rm C}$ = 50 mA, $R_{\rm BE}$ = ∞
Emitter to base breakdown voltage	$V_{(BR)EBO}$	5	_	_	5	_	_	V	$I_E = 10 \mu A, I_C = 0$
Collector cutoff current	I _{CBO}	_	_	1	_	_	1	μΑ	V _{CB} = 50 V, I _E = 0
DC current transfer ratio	h _{FE1} *1	60	_	320	60	_	320		$V_{CE} = 4V I_{C} = 1 A^{*2}$
	h _{FE2}	35	_	_	35	_	_		$I_{\rm C} = 0.1 A^{*2}$
Collector to emitter saturation voltage	$V_{CE(sat)}$	_	_	1	_	_	1	V	$I_{\rm C} = 2 \text{ A}, I_{\rm B} = 0.2 \text{ A}^{*2}$
Base to emitter voltage	V_{BE}	_	_	1	_	_	1	V	$V_{CE} = 4 \text{ V}, I_{C} = 1 \text{ A}^{*2}$
Gain bandwidth product	f⊤	_	7	_	_	7	_	MHz	$V_{CE} = 4 \text{ V}, I_{C} = 0.5 \text{ A}^{*2}$

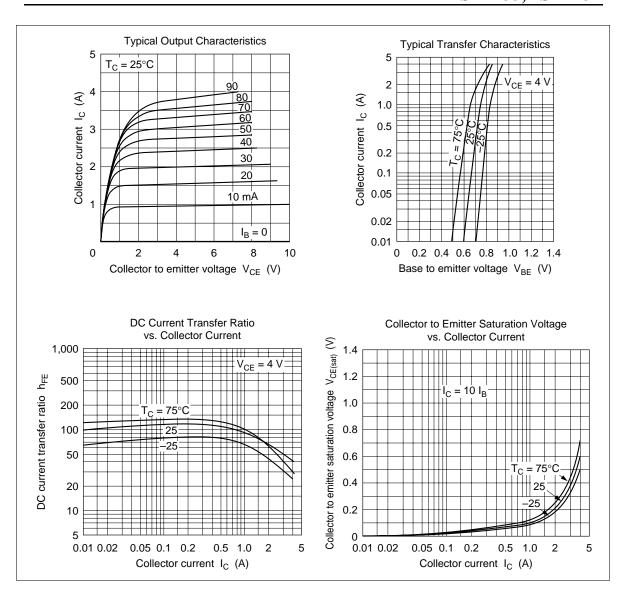
Notes: 1. The 2SD1133 and 2SD1134 are grouped by h_{FE1} as follows.

2. Pulse test.

В	С	D
60 to 120	100 to 200	160 to 320

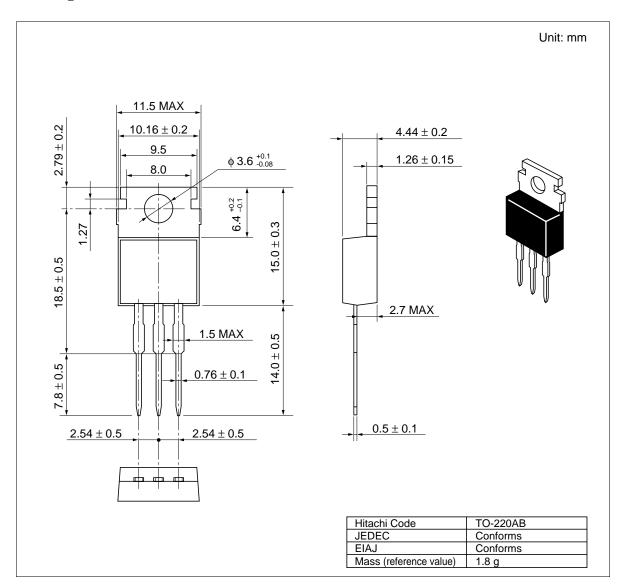






2SD1133, 2SD1134

Package Dimensions



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IITACHI

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/

Europe http://www.hitachi-eu.com/hel/ecg Asia http://sicapac.hitachi-asia.com Japan http://www.hitachi.co.jp/Sicd/indx.htm

For further information write to:

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

Hitachi Europe GmbH Electronic Components Group Dornacher Straße 3 D-85622 Feldkirchen, Munich

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) 585160

Hitachi Asia Ltd. Hitachi Tower 16 Collyer Quay #20-00, Singapore 049318 Tel: <65>-538-6533/538-8577 Fax: <65>-538-6933/538-3877 URL: http://www.hitachi.com.sg

Hitachi Asia I td (Taipei Branch Office) 4/F, No. 167, Tun Hwa North Road, Hung-Kuo Building.

Taipei (105), Taiwan Tel: <886>-(2)-2718-3666 Fax: <886>-(2)-2718-8180

Telex: 23222 HAS-TP URL: http://www.hitachi.com.tw

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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 URL: http://www.hitachi.com.hk