
2SC5448

Silicon NPN Triple Diffused
Character Display Horizontal Deflection Output

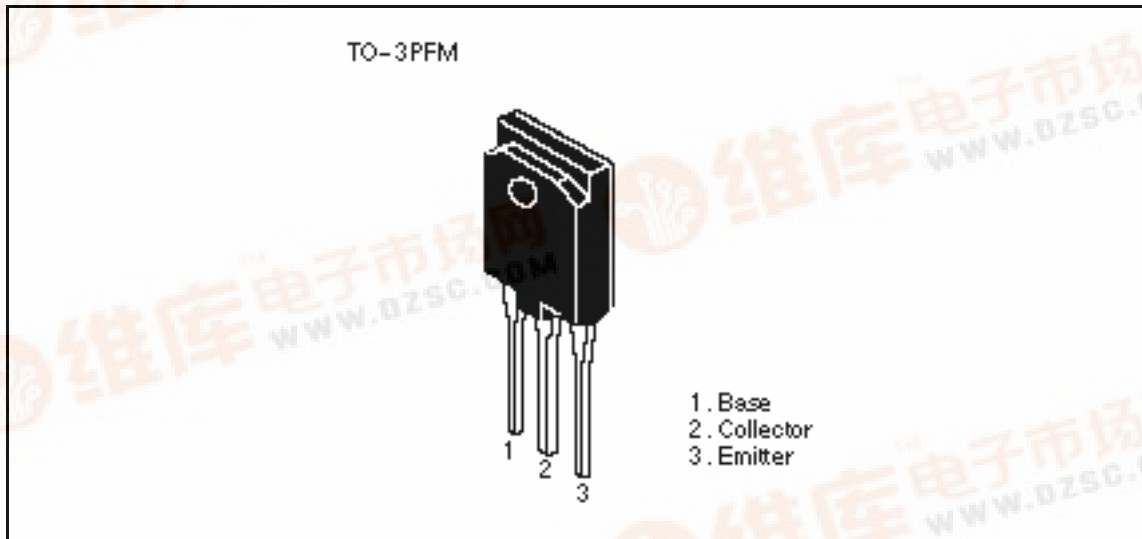
HITACHI

ADE-208-577 B (Z)
3rd. Edition
September 1997

Features

- High breakdown voltage
 $V_{CBO} = 1500\text{ V}$
- High speed switching
 $t_r = 0.15\text{ }\mu\text{sec (typ.)}$ at $f_H = 64\text{ kHz}$
- Isolated package
TO-3PFM

Outline



2SC5448

Absolute Maximum Ratings (Ta = 25°C)

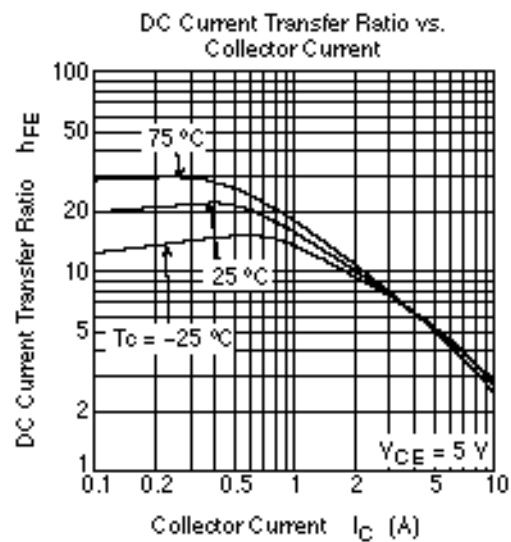
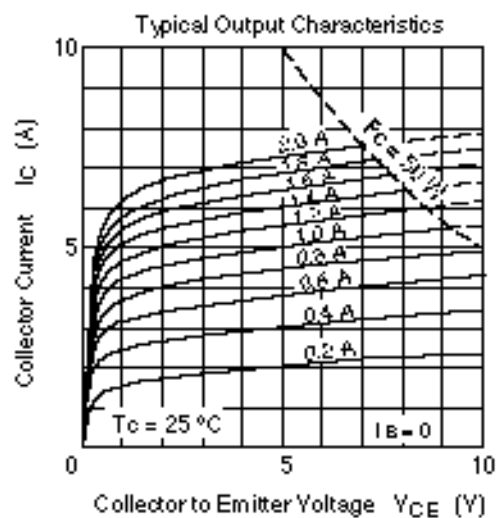
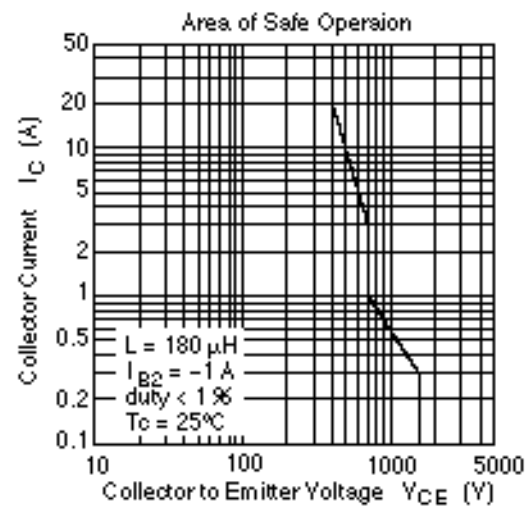
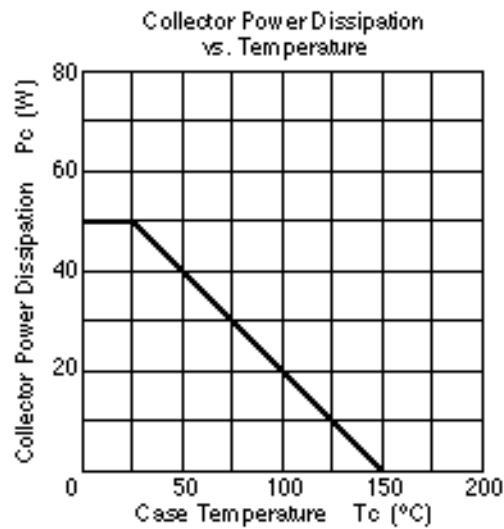
Item	Symbol	Ratings	Unit
Collector to base voltage	V_{CBO}	1500	V
Collector to emitter voltage	V_{CEO}	700	V
Emitter to base voltage	V_{EBO}	6	V
Collector current	I_C	10	A
Collector peak current	$i_{c(peak)}$	20	A
Collector power dissipation	P_C ^{Note1}	50	W
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	-55 to +150	°C

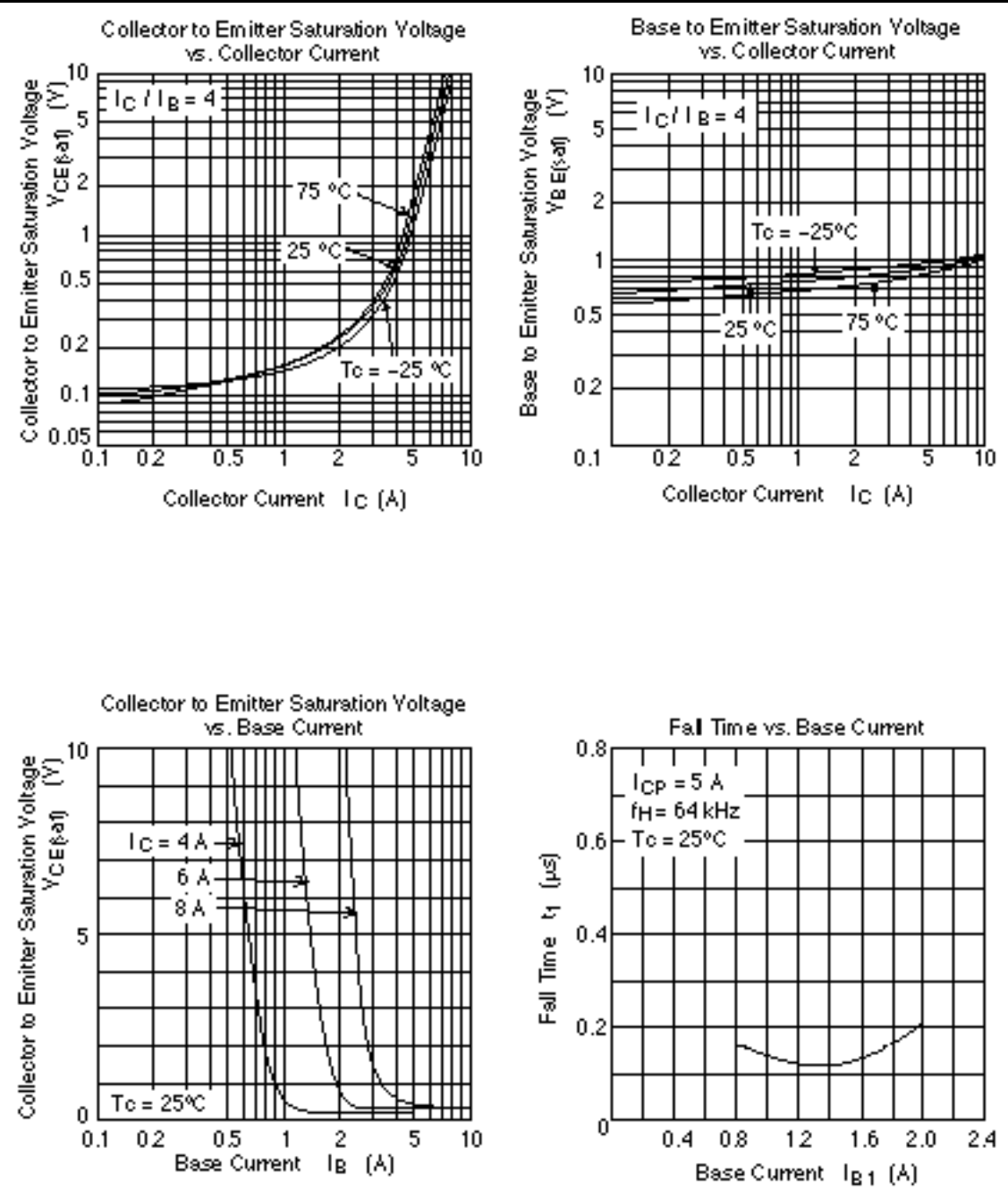
Note: 1. Value at $T_c = 25^\circ\text{C}$

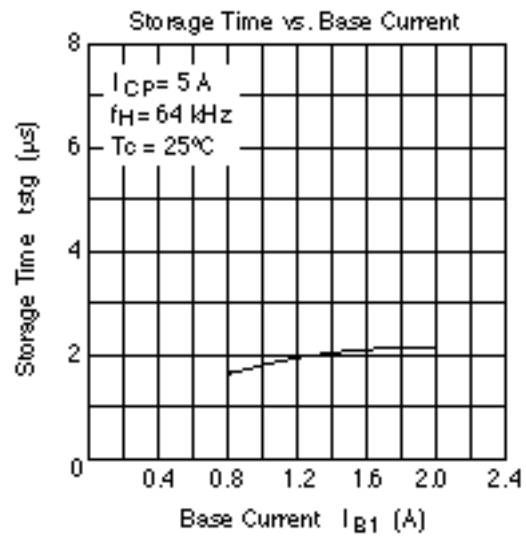
Electrical Characteristics (Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test Conditions
Collector to emitter breakdown voltage	$V_{(BR)CEO}$	700	—	—	V	$I_C = 10\text{mA}$, $R_{BE} =$
Emitter to base breakdown voltage	$V_{(BR)EBO}$	6	—	—	V	$I_E = 10\text{mA}$, $I_C = 0$
Collector cutoff current	I_{CES}	—	—	500	μA	$V_{CE} = 1500\text{V}$, $R_{BE} = 0$
DC current transfer ratio	h_{FE1}	10	—	30		$V_{CE} = 5\text{V}$, $I_C = 1\text{A}$
DC current transfer ratio	h_{FE2}	3.5	—	6.5		$V_{CE} = 5\text{V}$, $I_C = 6\text{A}$
Collector to emitter saturation voltage	$V_{CE(sat)}$	—	—	5	V	$I_C = 6\text{A}$, $I_B = 1.6\text{A}$
Base to emitter saturation voltage	$V_{BE(sat)}$	—	—	1.5	V	$I_C = 6\text{A}$, $I_B = 1.6\text{A}$
Fall time	t_f	—	0.2	0.4	μs	$I_{CP} = 5\text{A}$, $I_{B1} = 1.6\text{A}$ $f_H = 31.5\text{kHz}$
Fall time	t_f	—	0.15	—	μs	$I_{CP} = 5\text{A}$, $I_{B1} = 1.3\text{A}$ $f_H = 64\text{kHz}$

Main Characteristics



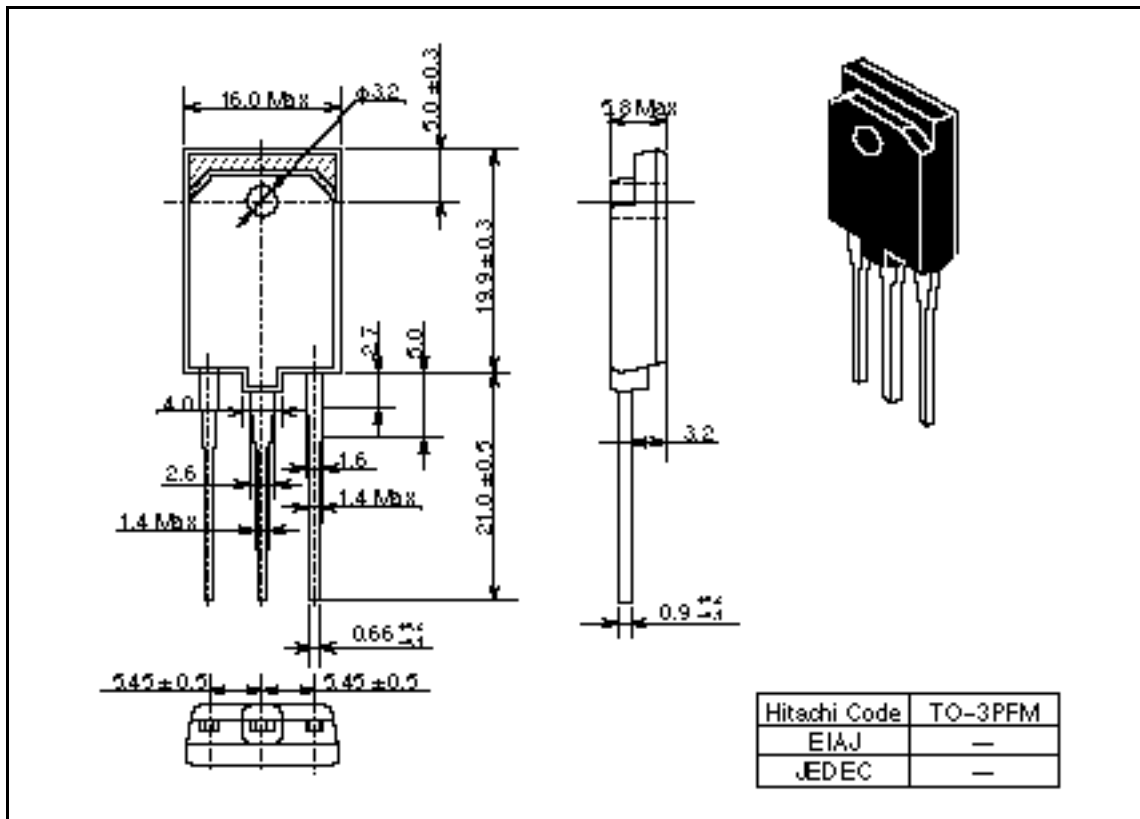




2SC5448

Package Dimensions

Unit: mm



When using this document, keep the following in mind:

1. This document may, wholly or partially, be subject to change without notice.
2. All rights are reserved: No one is permitted to reproduce or duplicate, in any form, the whole or part of this document without Hitachi's permission.
3. Hitachi will not be held responsible for any damage to the user that may result from accidents or any other reasons during operation of the user's unit according to this document.
4. Circuitry and other examples described herein are meant merely to indicate the characteristics and performance of Hitachi's semiconductor products. Hitachi assumes no responsibility for any intellectual property claims or other problems that may result from applications based on the examples described herein.
5. No license is granted by implication or otherwise under any patents or other rights of any third party or Hitachi, Ltd.
6. **MEDICAL APPLICATIONS:** Hitachi's products are not authorized for use in MEDICAL APPLICATIONS without the written consent of the appropriate officer of Hitachi's sales company. Such use includes, but is not limited to, use in life support systems. Buyers of Hitachi's products are requested to notify the relevant Hitachi sales offices when planning to use the products in MEDICAL APPLICATIONS.

HITACHI

Hitachi, Ltd.

Semiconductor & IC Div.

Nippon Bldg., 2-6-2, Ohba-machi, Chiyoda-ku, Tokyo 100, Japan

Tel Tokyo (03) 3270-2111

Fax (03) 3270-5109

For further information write to:

Hitachi America, Ltd.
Semiconductor & IC Div.

2000 Sierra Point Parkway
Brisbane, CA 94005-4935
U.S.A.

Tel 415-589-8300
Fax 415-589-4207

Hitachi Europe GmbH
Electronic Components Group

Continental Europe
Darnacher Straße 3
D-85622 Feldkirchen
München

Tel 089-9 91 80-0
Fax 089-9 29 30 00

Hitachi Europe Ltd.
Electronic Components Div.

Northern Europe Headquarters
Whitebrook Park
Lower Cookham Road
Maidenhead
Berkshire SL6 8YA

United Kingdom
Tel 0628-585000
Fax 0628-778322

Hitachi Asia Pte. Ltd.
45 Collyer Quay #20-00

Hitachi Tower
Singapore 04104
Tel 535-2400
Fax 535-1533

Hitachi Asia (Hong Kong) Ltd.
Unit 706, North Tower,
World Finance Centre
Harbour City, Canton Road
Tsim Sha Tsui, Kowloon
Hong Kong
Tel 27359218
Fax 27308074

Copyright ©Hitachi, Ltd., 1997. All rights reserved. Printed in Japan.