2SC4927

Silicon NPN Triple Diffused

HITACHI

Application

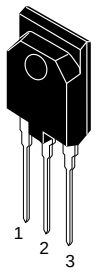
TV/character display horizontal deflection output

Features

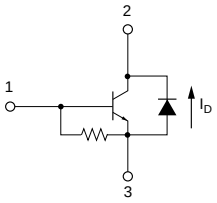
- High breakdown voltage
  V_{CES} = 1500 V
- Built-in damper diode type
- Isolated package
  TO-3PFM

Outline

TO-3PFM



1. Base
2. Collector
3. Emitter



Absolute Maximum Ratings (Ta = 25°C)

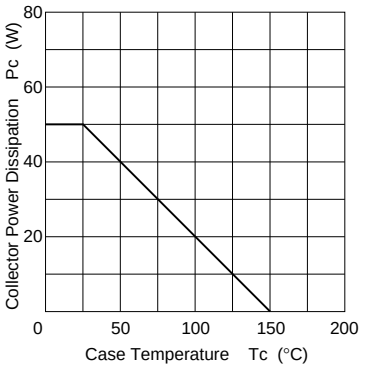
Item	Symbol	Ratings	Unit
Collector to emitter voltage	V_{CES}	1500	V
Emitter to base voltage	V_{EBO}	6	V
Collector current	I_C	8	A
Collector peak current	$I_{C(peak)}$	9	A
Collector surge current	$I_{C(surge)}$	18	A
Collector power dissipation	P_C*[1]	50	W
Junction temperature	Tj	150	°C
Storage temperature	Tstg	–55 to +150	°C
C to E diode forward current	I_D	8	A

Note: 1. Value at T_C = 25°C.

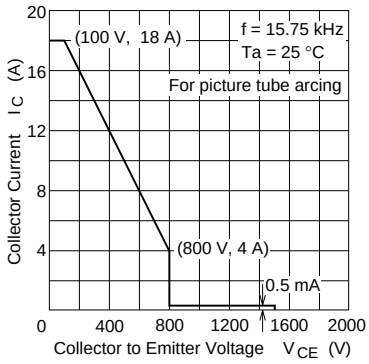
Electrical Characteristics (Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test conditions
Emitter to base breakdown voltage	$V_{(BR)EBO}$	6	—	—	V	I_E = 500 mA, I_C = 0
Collector cutoff current	I_{CES}	—	—	500	µA	V_{CE} = 1500 V, R_{BE} = 0
DC current transfer ratio	h_{FE}	—	—	25	—	V_{CE} = 5 V, I_C = 1 A
Collector to emitter saturation voltage	$V_{CE(sat)}$	—	—	5	V	I_C = 6 A, I_B = 1.2 A
Base to emitter saturation voltage	$V_{BE(sat)}$	—	—	1.5	V	I_C = 6 A, I_B = 1.2 A
C to E diode forward voltage	V_{ECF}	—	—	2.0	V	I_F = 8 A
Fall time	t_f	—	—	0.5	µs	I_{CP} = 6 A, I_{B1} = 1.2 A, $I_{B2} \cong$ –2.4 A, f_H = 31.5 kHz

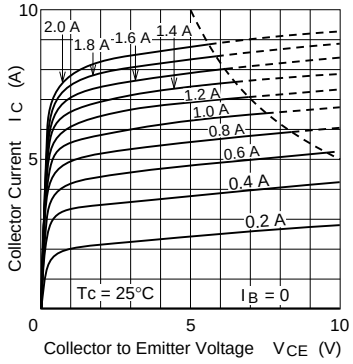
Maximum Collector Power Dissipation Curve



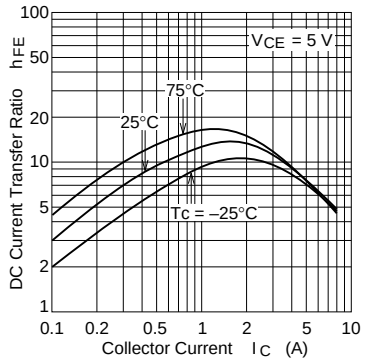
Area of Safe Operation



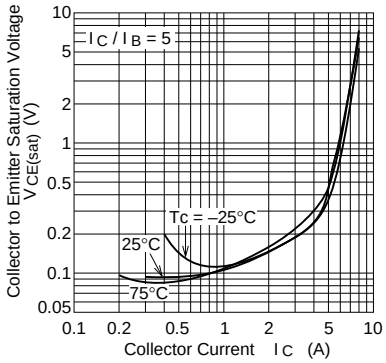
Typical Output Characteristics



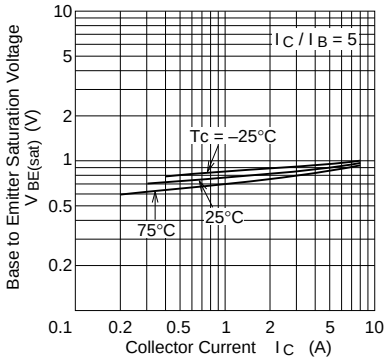
DC Current Transfer Ratio
vs. Collector Current



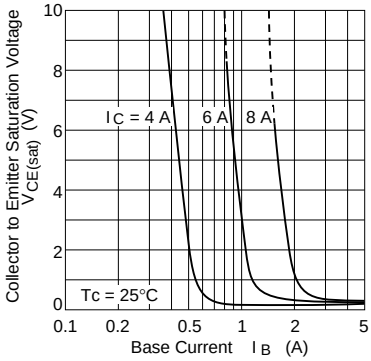
Collector to Emitter Saturation Voltage
vs. Collector Current



Base to Emitter Saturation Voltage
vs. Collector Current



Collector to Emitter Saturation Voltage
vs. Base Current



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HITACHI

Hitachi, Ltd.
Semiconductor & IC Div.
Nippon Bldg., 2-6-2, Ohte-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. 94005-1835
U S A
Tel: 415-589-8300
Fax: 415-583-4207

Hitachi Europe GmbH
Electronic Components Group
Continental Europe
Dornacher 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.
16 Collyer Quay #20-00
Hitachi Tower
Singapore 0104
Tel: 535-2100
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: 27306071