
2SC1515(K)

Silicon NPN Triple Diffused

HITACHI

ADE-208-1055 (Z)

1st. Edition

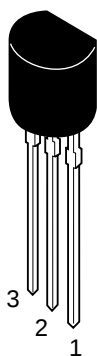
Mar. 2001

Application

High voltage switching

Outline

TO-92 (1)



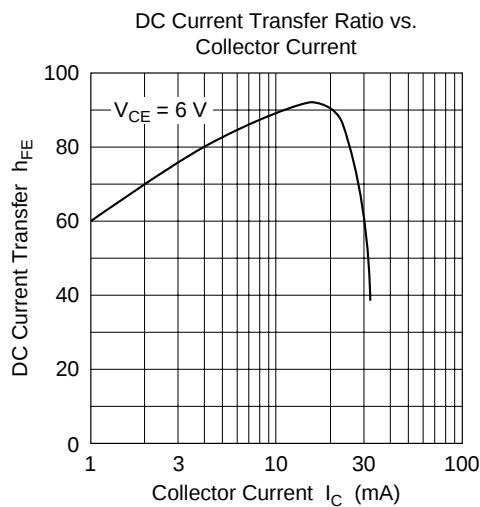
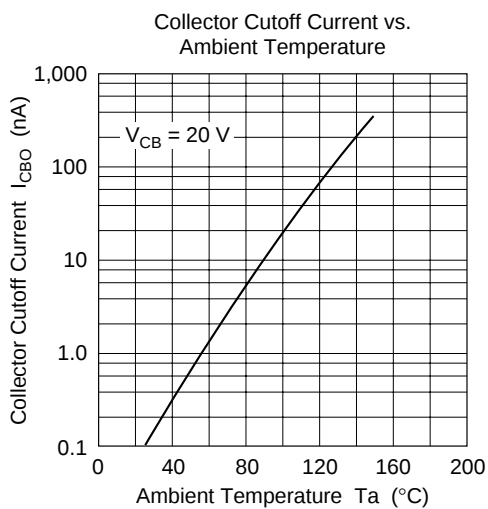
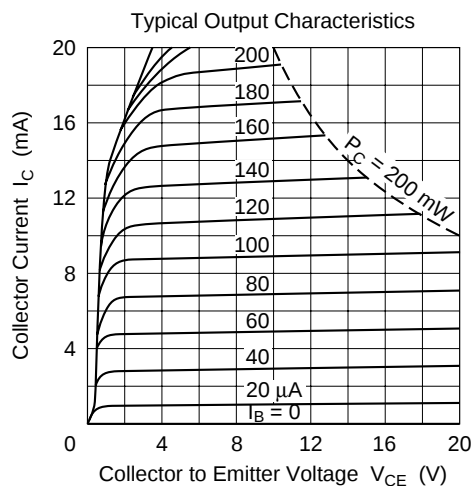
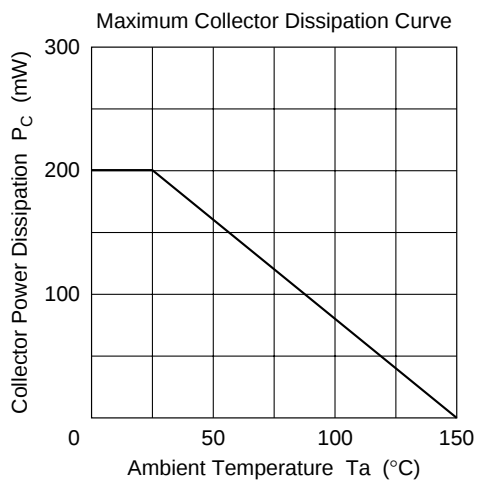
- 1. Emitter
- 2. Collector
- 3. Base

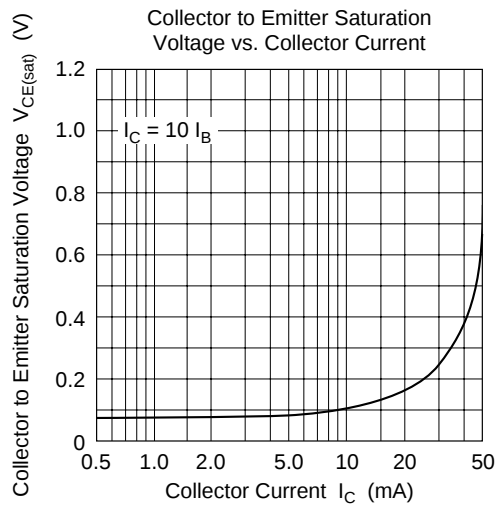
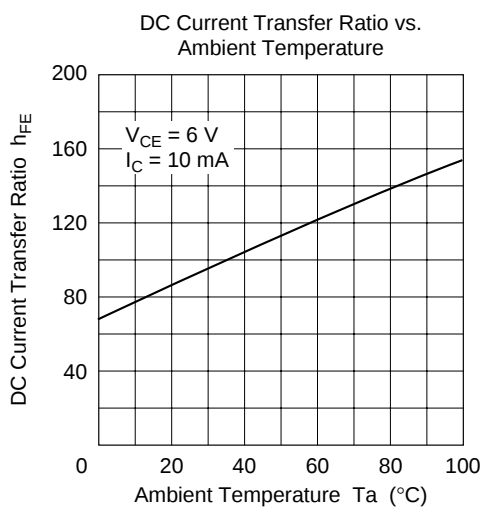
Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

Item	Symbol	Ratings	Unit
Collector to base voltage	V_{CBO}	200	V
Collector to emitter voltage	V_{CES}	200	V
	V_{CEO}	150	V
Emitter to base voltage	V_{EBO}	5	V
Collector current	I_{C}	50	mA
Collector power dissipation	P_{C}	200	mW
Junction temperature	T_{j}	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 to +150	$^\circ\text{C}$

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

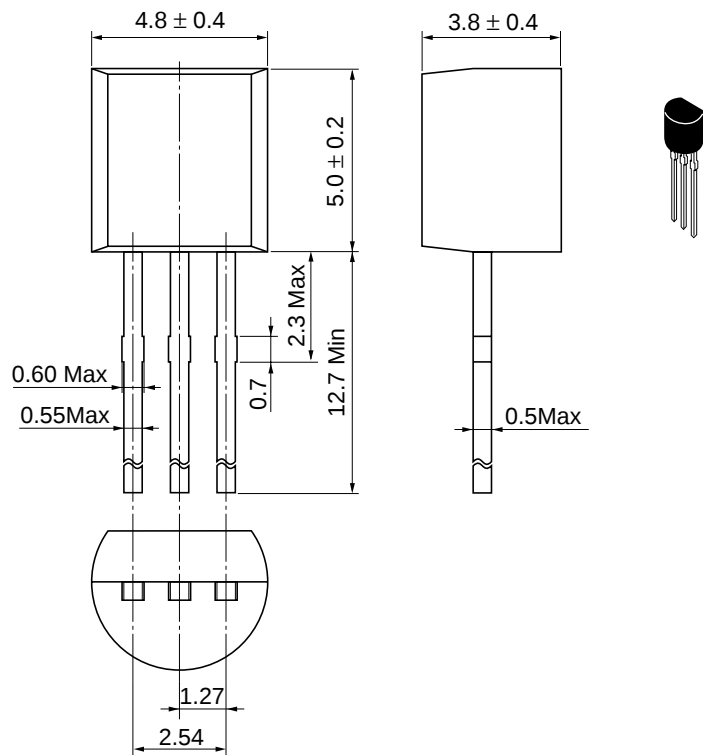
Item	Symbol	Min	Typ	Max	Unit	Test conditions
Collector to emitter breakdown voltage	$V_{(\text{BR})\text{CES}}$	200	—	—	V	$I_{\text{C}} = 10\text{ }\mu\text{A}$, $R_{\text{BE}} = 0$
	$V_{(\text{BR})\text{CEO}}$	150	—	—	V	$I_{\text{C}} = 1\text{ mA}$, $R_{\text{BE}} = \infty$
Emitter to base breakdown voltage	$V_{(\text{BR})\text{EBO}}$	5	—	—	V	$I_{\text{E}} = 10\text{ }\mu\text{A}$, $I_{\text{C}} = 0$
Collector cutoff current	I_{CBO}	—	—	0.1	μA	$V_{\text{CB}} = 20\text{ V}$, $I_{\text{E}} = 0$
DC current transfer ratio	h_{FE}	30	—	300		$V_{\text{CE}} = 6\text{ V}$, $I_{\text{C}} = 10\text{ mA}$
Collector to emitter saturation voltage	$V_{\text{CE}(\text{sat})}$	—	—	1.0	V	$I_{\text{C}} = 10\text{ mA}$, $I_{\text{B}} = 1\text{ mA}$
Base to emitter saturation voltage	$V_{\text{BE}(\text{sat})}$	—	—	1.5	V	$I_{\text{C}} = 10\text{ mA}$, $I_{\text{B}} = 1\text{ mA}$
Gain bandwidth product	f_{T}	60	—	—	MHz	$V_{\text{CE}} = 6\text{ V}$, $I_{\text{C}} = 10\text{ mA}$
Collector output capacitance	C_{ob}	—	—	10	pF	$V_{\text{CB}} = 6\text{ V}$, $I_{\text{E}} = 0$, $f = 1\text{ MHz}$





Package Dimensions

As of January, 2001
Unit: mm



Hitachi Code	TO-92 (1)
JEDEC	Conforms
EIAJ	Conforms
Mass (reference value)	0.25 g

Cautions

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HITACHI

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
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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) 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 Ltd.
(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>

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>

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