

# 2SB955(K)

Silicon PNP Triple Diffused

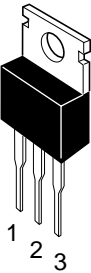
# HITACHI

## Application

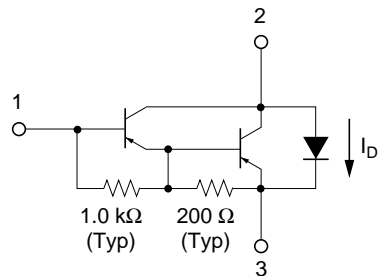
Power switching complementary pair with 2SD1126(K)

## Outline

TO-220AB



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



## 2SB955(K)

### Absolute Maximum Ratings (Ta = 25°C)

Item	Symbol	Rating	Unit
Collector to base voltage	$V_{CBO}$	-120	V
Collector to emitter voltage	$V_{CEO}$	-120	V
Emitter to base voltage	$V_{EBO}$	-7	V
Collector current	$I_C$	-10	A
Collector peak current	$I_{C(\text{peak})}$	-15	A
C to E diode forward current	$I_D^{*1}$	10	A
Collector power dissipation	$P_C^{*2}$	50	W
Junction temperature	Tj	150	°C
Storage temperature	Tstg	-55 to +150	°C

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

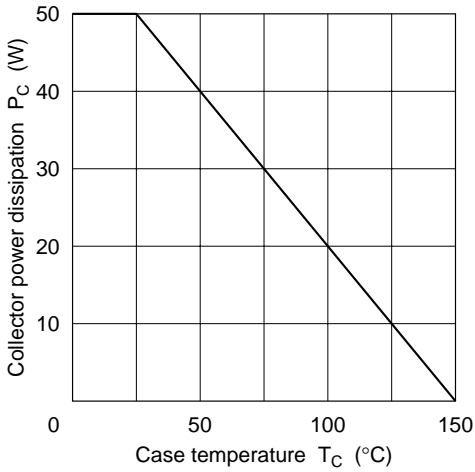
2.  $PW \leq 1 \text{ ms}$  1 shot

### Electrical Characteristics (Ta = 25°C)

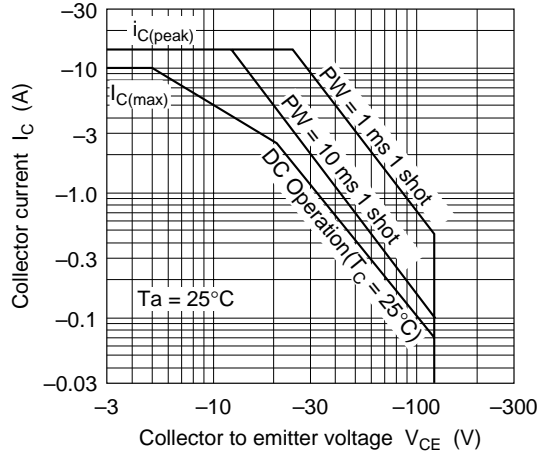
Item	Symbol	Min	Typ	Max	Unit	Test conditions
Collector to emitter breakdown voltage	$V_{(BR)CEO}$	-120	—	—	V	$I_C = -25 \text{ mA}$ , $R_{BE} = \infty$
Emitter to base breakdown voltage	$V_{(BR)EBO}$	-7	—	—	V	$I_E = -200 \text{ mA}$ , $I_C = 0$
Collector cutoff current	$I_{CBO}$	—	—	-100	$\mu\text{A}$	$V_{CB} = -120 \text{ V}$ , $I_E = 0$
	$I_{CEO}$	—	—	-10	$\mu\text{A}$	$V_{CE} = -100 \text{ V}$ , $R_{BE} = \infty$
DC current transfer ratio	$h_{FE}$	1000	—	20000		$V_{CE} = -3 \text{ V}$ , $I_C = -5 \text{ A}^{*1}$
Collector to emitter saturation voltage	$V_{CE(\text{sat})1}$	—	—	-1.5	V	$I_C = -5 \text{ A}$ , $I_B = -10 \text{ mA}^{*1}$
	$V_{CE(\text{sat})2}$	—	—	-3.0	V	$I_C = -10 \text{ A}$ , $I_B = -0.1 \text{ A}^{*1}$
Base to emitter saturation voltage	$V_{BE(\text{sat})1}$	—	—	-2.0	V	$I_C = -5 \text{ A}$ , $I_B = -10 \text{ mA}^{*1}$
	$V_{BE(\text{sat})2}$	—	—	-3.5	V	$I_C = -10 \text{ A}$ , $I_B = -0.1 \text{ A}^{*1}$
C to E diode forward voltage	$V_D$	—	—	3.0	V	$I_D = 10 \text{ A}^{*1}$
Turn on time	$t_{on}$	—	0.8	—	$\mu\text{s}$	$V_{CC} = -30 \text{ V}$
Turn off time	$t_{off}$	—	4.0	—	$\mu\text{s}$	$I_C = -5 \text{ A}$ , $I_{B1} = -I_{B2} = -10 \text{ mA}$

Note: 1. Pulse test

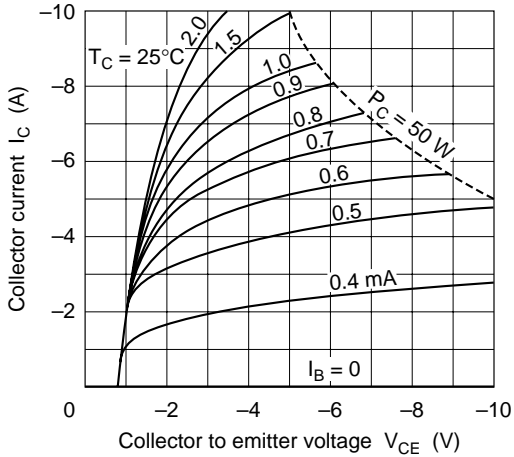
Maximum Collector Dissipation Curve



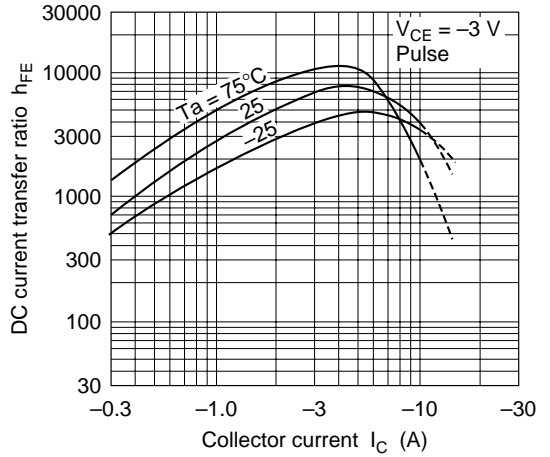
Area of Safe Operation

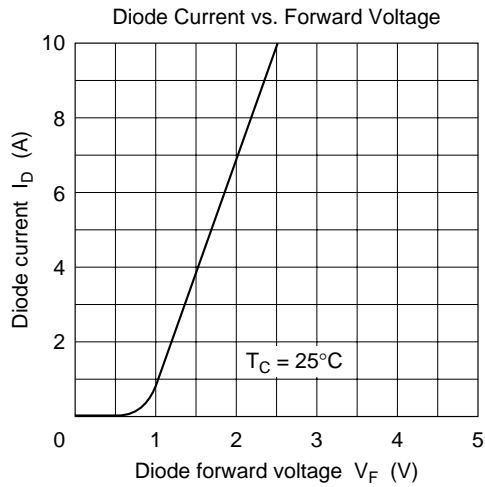
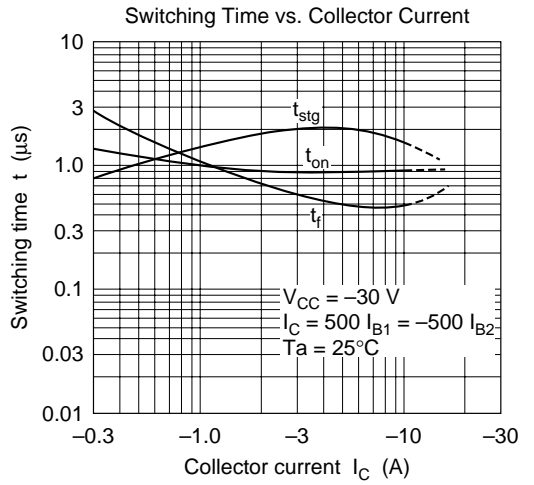
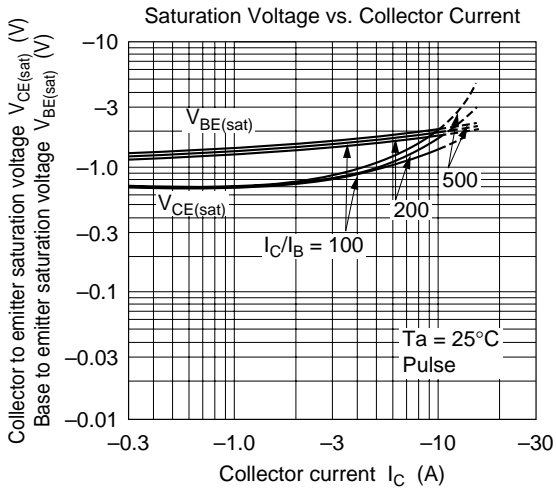


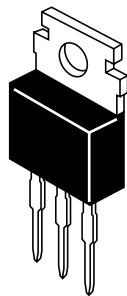
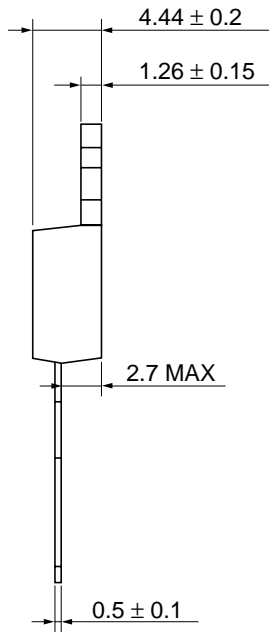
Typical Output Characteristics



DC Current Transfer Ratio vs. Collector Current







Hitachi Code	TO-220AB
JEDEC	Conforms
EIAJ	Conforms
Weight (reference value)	1.8 g

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