

2SB955(K)

Silicon PNP Triple Diffused

HITACHI

ADE-208-863 (Z)

1st. Edition

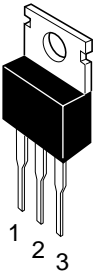
Sep. 2000

Application

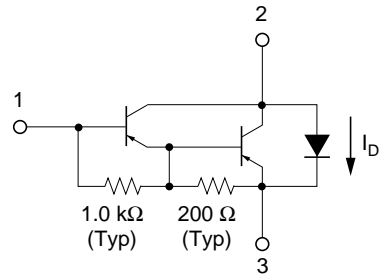
Power switching complementary pair with 2SD1126(K)

Outline

TO-220AB



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



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

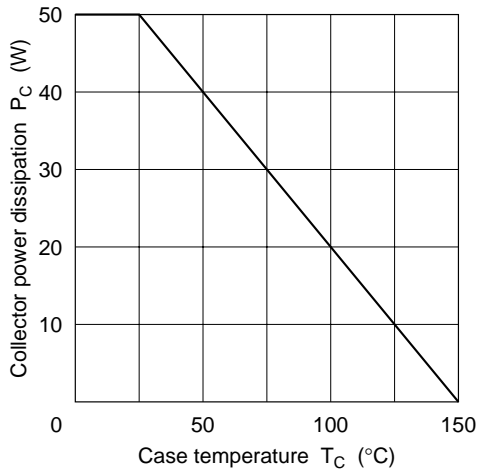
Item	Symbol	Rating	Unit
Collector to base voltage	V_{CBO}	-120	V
Collector to emitter voltage	V_{CEO}	-120	V
Emitter to base voltage	V_{EBO}	-7	V
Collector current	I_{C}	-10	A
Collector peak current	$I_{\text{C(peak)}}$	-15	A
C to E diode forward current	I_{D}^{*1}	10	A
Collector power dissipation	P_{C}^{*2}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

Notes: 1. Value at $T_{\text{C}} = 25^\circ\text{C}$ 2. $PW \leq 1 \text{ ms}$ 1 shot**Electrical Characteristics** ($T_a = 25^\circ\text{C}$)

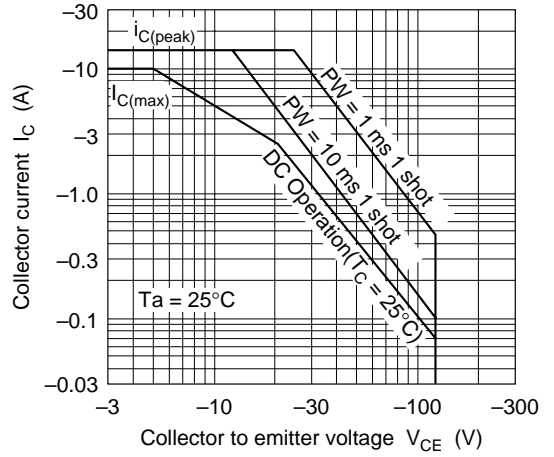
Item	Symbol	Min	Typ	Max	Unit	Test conditions
Collector to emitter breakdown voltage	$V_{(\text{BR})\text{CEO}}$	-120	—	—	V	$I_{\text{C}} = -25 \text{ mA}$, $R_{\text{BE}} = \infty$
Emitter to base breakdown voltage	$V_{(\text{BR})\text{EBO}}$	-7	—	—	V	$I_{\text{E}} = -200 \text{ mA}$, $I_{\text{C}} =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

Note: 1. Pulse test

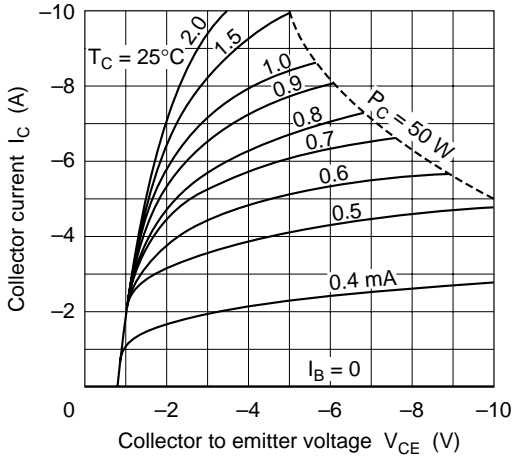
Maximum Collector Dissipation Curve



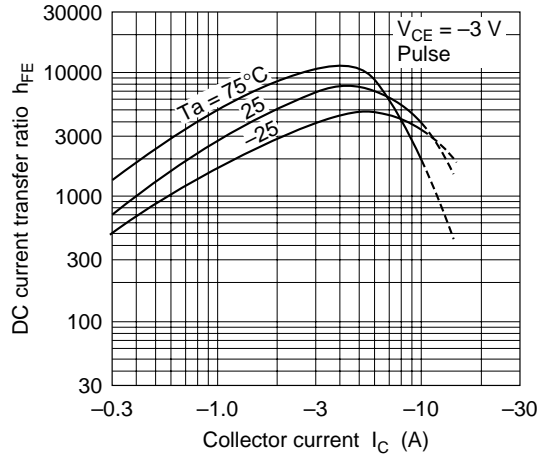
Area of Safe Operation

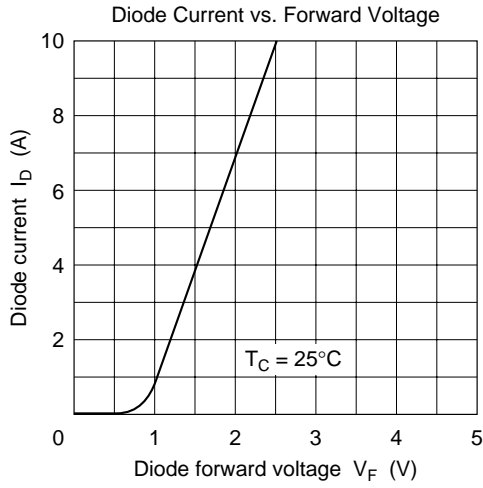
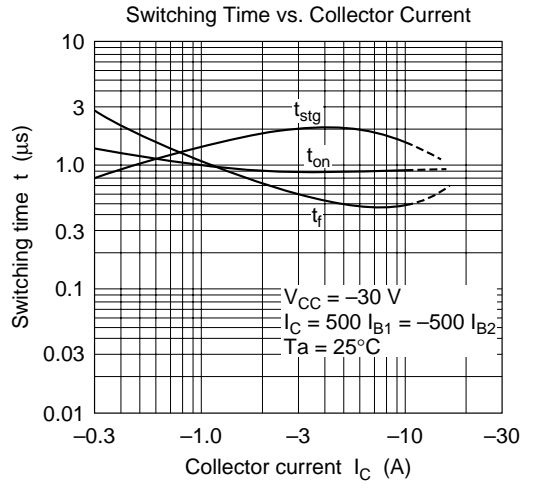
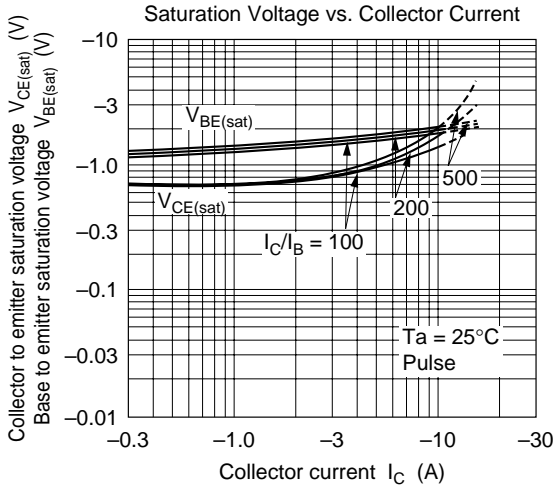


Typical Output Characteristics



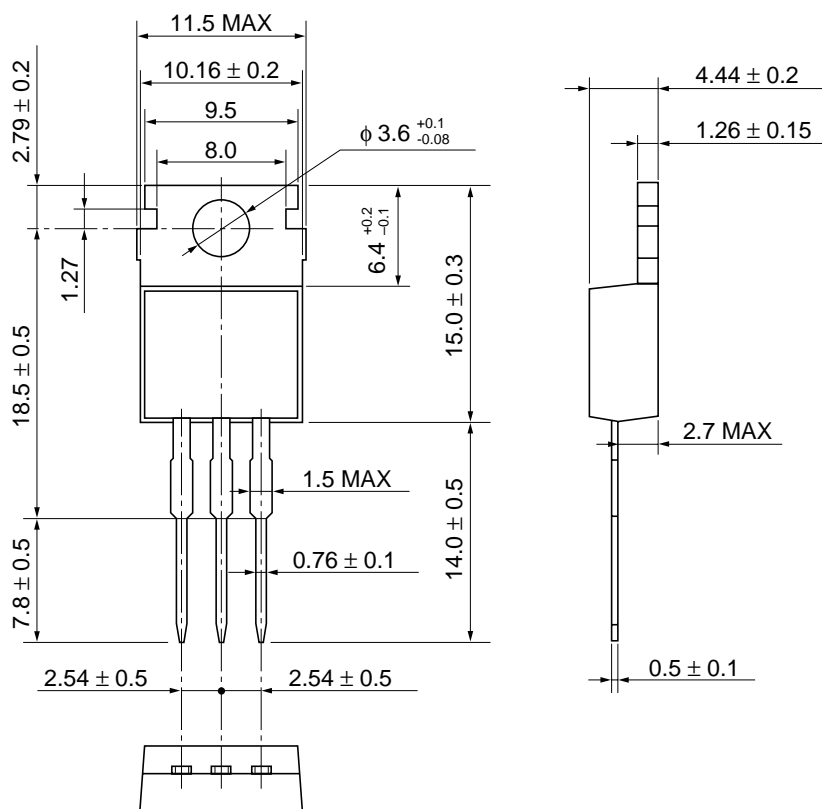
DC Current Transfer Ratio vs. Collector Current





Package Dimensions

Unit: mm



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

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