

2SD1436(K)

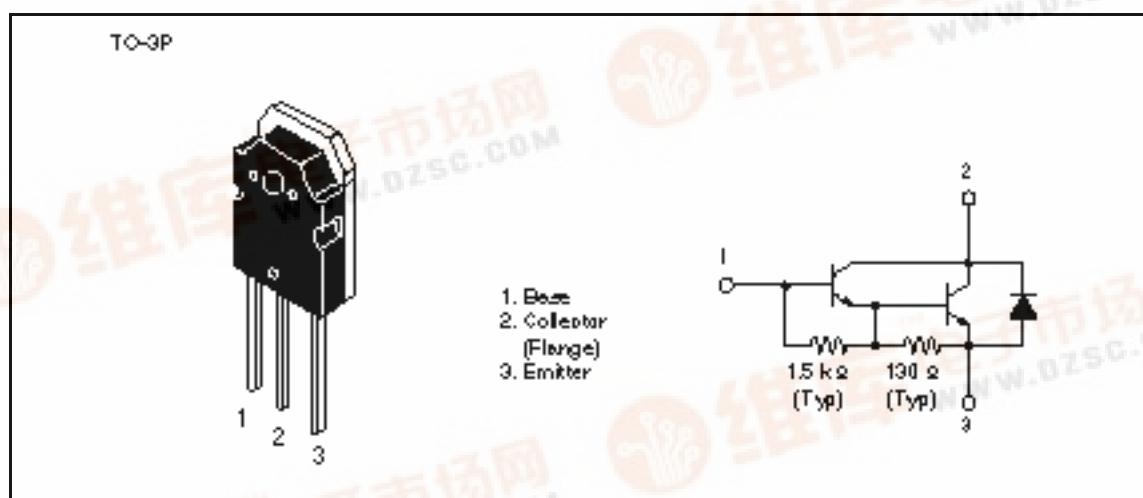
Silicon NPN Triple Diffused

HITACHI

Application

Power switching complementary pair with 2SB1032(K)

Outline



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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 (peak)	15	A
Collector power dissipation	P _C * ¹	80	W
Junction temperature	T _j	150	°C
Storage temperature	T _{stg}	−55 to +150	°C

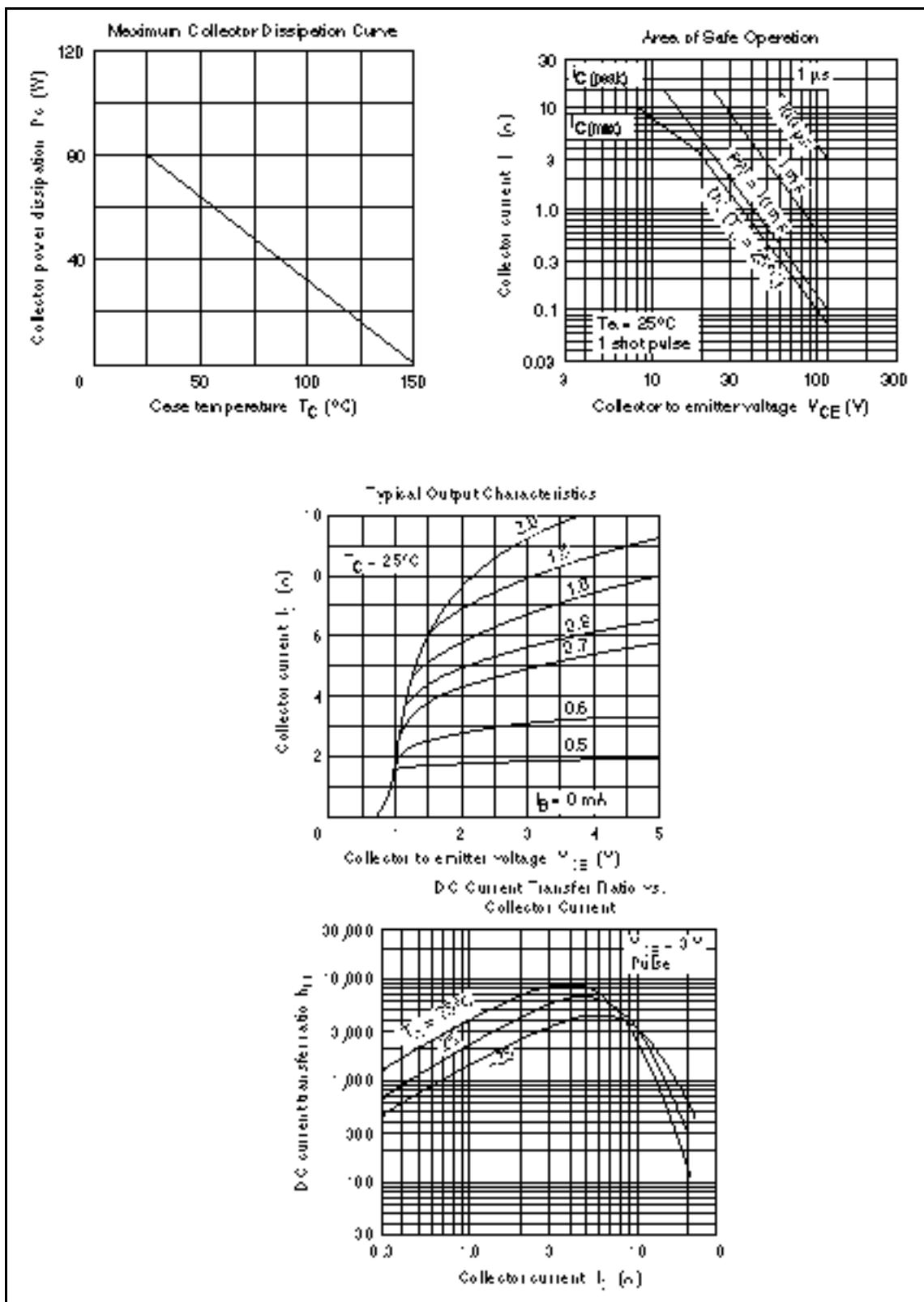
Note: 1. Value at T_C = 25°C.

Electrical Characteristics (Ta = 25°C)

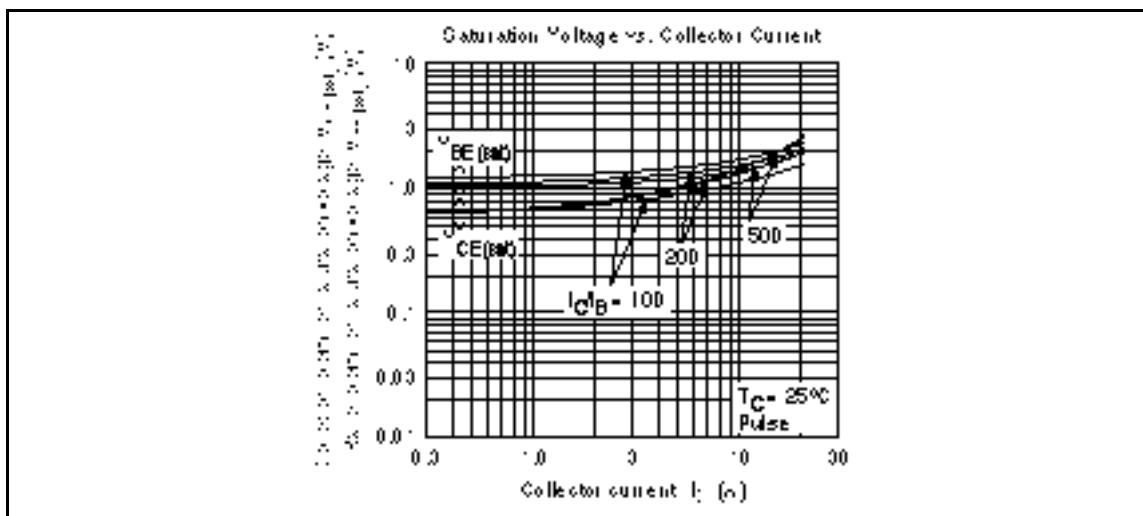
Item	Symbol	Min	Typ	Max	Unit	Test conditions
Collector to emitter breakdown voltage	V _{(BR)CEO}	120	—	—	V	I _C = 25 mA, R _{BE} =
Emitter to base breakdown voltage	V _{(BR)EBO}	7	—	—	V	I _E = 200 mA, I _C = 0
Collector cutoff current	I _{CBO}	—	—	100	μA	V _{CB} = 120 V, I _E = 0
	I _{CEO}	—	—	10	μA	V _{CE} = 100 V, R _{BE} =
DC current transfer ratio	h _{FE}	1000	—	20000		V _{CE} = 3 V, I _C = 5 A* ¹
Collector to emitter saturation voltage	V _{CE(sat)1}	—	—	1.5	V	I _C = 5 A, I _B = 10 mA* ¹
	V _{CE(sat)2}	—	—	3.0	V	I _C = 10 A, I _B = 0.1 A* ¹
Base to emitter saturation voltage	V _{BE(sat)1}	—	—	2.0	V	I _C = 5 A, I _B = 10 mA* ¹
	V _{BE(sat)2}	—	—	3.5	V	I _C = 10 A, I _B = 0.1 A* ¹
Turn on time	T _{on}	—	0.8	—	μs	I _C = 5 A, I _{B1} = −I _{B2} = 10 mA
Turn off time	T _{off}	—	4.0	—	μs	

Note: 1. Pulse test.

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