

To our customers,

Old Company Name in Catalogs and Other Documents

On April 1st, 2010, NEC Electronics Corporation merged with Renesas Technology Corporation, and Renesas Electronics Corporation took over all the business of both companies. Therefore, although the old company name remains in this document, it is a valid Renesas Electronics document. We appreciate your understanding.

Renesas Electronics website: <http://www.renesas.com>

April 1st, 2010
Renesas Electronics Corporation

Issued by: Renesas Electronics Corporation (<http://www.renesas.com>)

Send any inquiries to <http://www.renesas.com/inquiry>.

EOL announced Product

The Renesas logo, consisting of the word "RENESAS" in a bold, sans-serif font with a stylized square symbol to the left.

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Renesas Technology Home Page: <http://www.renesas.com>

Renesas Technology Corp.
Customer Support Dept.
April 1, 2003

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2SD1436(K)

Silicon NPN Triple Diffused

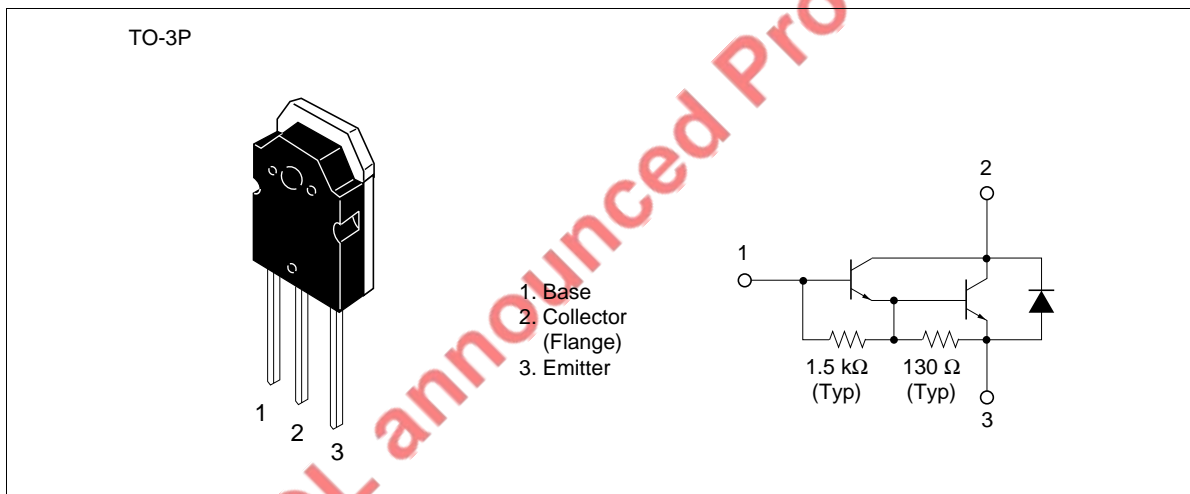
RENESAS

ADE-208-911 (Z)
1st. Edition
September 2000

Application

Power switching complementary pair with 2SB1032(K)

Outline



2SD1436(K)

Absolute Maximum Ratings (Ta = 25°C)

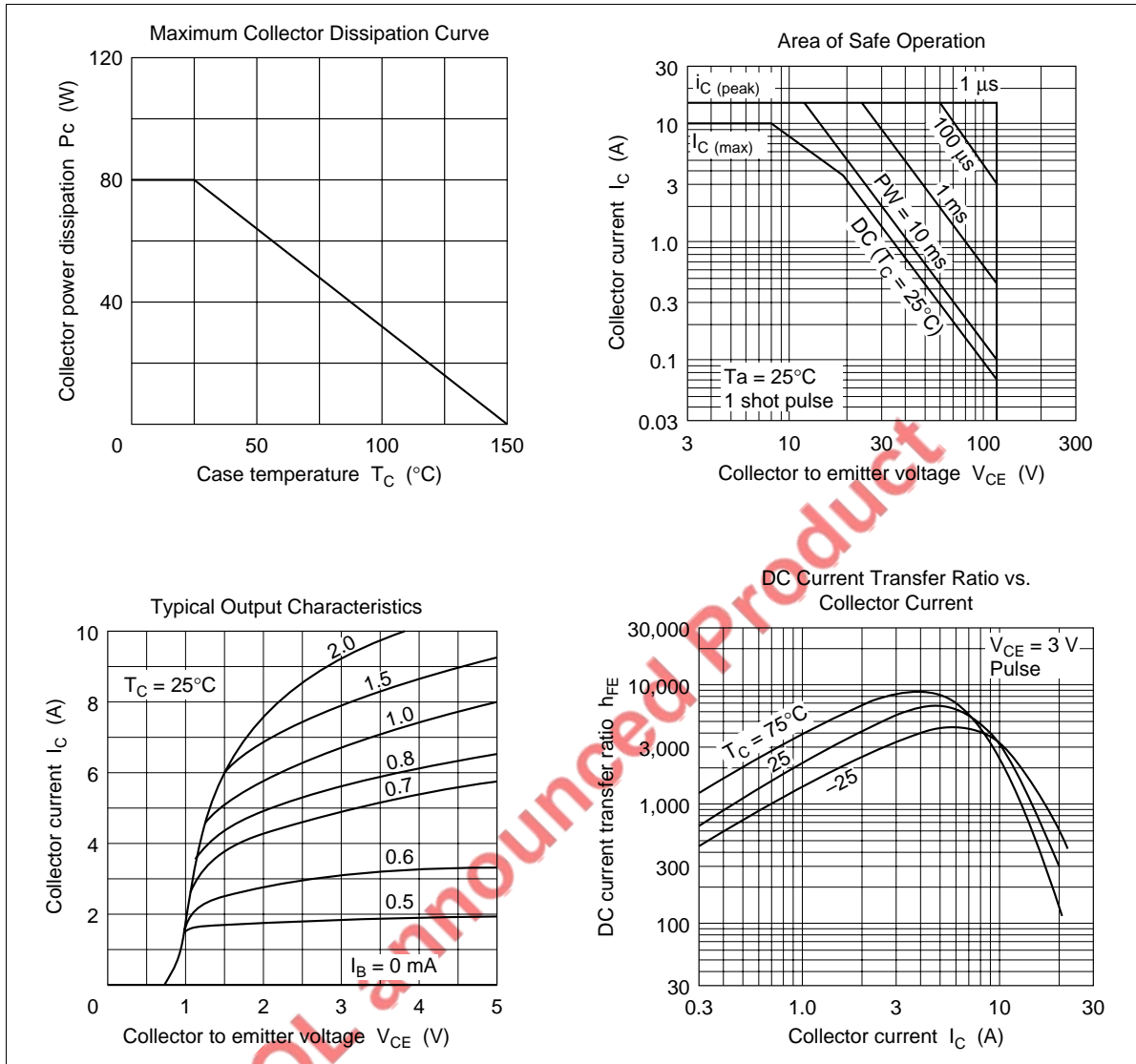
Item	Symbol	Rating	Unit
Collector to base voltage	V_{CBO}	120	V
Collector to emitter voltage	V_{CEO}	120	V
Emitter to base voltage	V_{EBO}	7	V
Collector current	I_C	10	A
Collector peak current	$I_{C(peak)}$	15	A
Collector power dissipation	P_C^{*1}	80	W
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	-55 to +150	°C

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

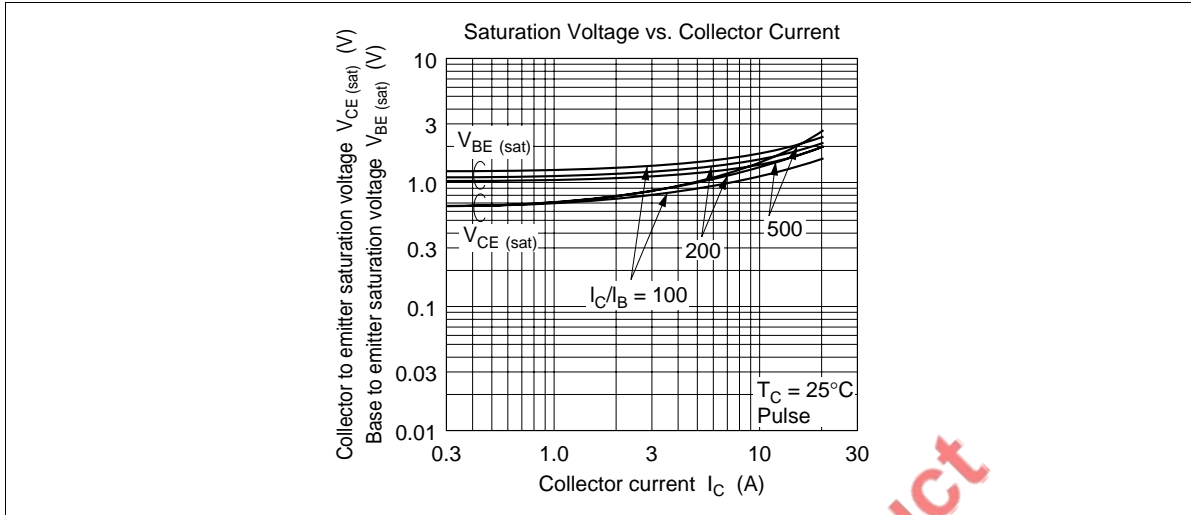
Electrical Characteristics (Ta = 25°C)

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

Note: 1. Pulse test.



2SD1436(K)



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