

<b>SANYO</b>	No.4664	<b>2SD2324</b>
		NPN Epitaxial Planar Silicon Transistor

**Compact Motor Driver Applications**

**Features**

- Low saturation voltage.
- Contains a diode between collector and emitter.
- Contains a bias resistor between base and emitter.
- Large current capacity.
- Small-sized package facilitating the realization of high-density, small-sized hybrid ICs.

**Absolute Maximum Ratings at Ta = 25°C**

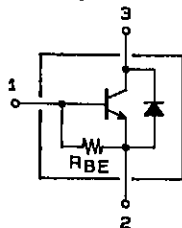
			unit
Collector-to-Base Voltage	V <sub>CB0</sub>	20	V
Collector-to-Emitter Voltage	V <sub>CEO</sub>	15	V
Emitter-to-Base Voltage	V <sub>EBO</sub>	5	V
Collector Current	I <sub>C</sub>	0.8	A
Collector Current (Pulse)	I <sub>CP</sub>	2	A
Collector Dissipation	P <sub>C</sub>	200	mW
Junction Temperature	T <sub>J</sub>	150	°C
Storage Temperature	T <sub>stg</sub>	-55 to +150	°C

**Electrical Characteristics at Ta = 25°C**

			min	typ	max	unit
Collector Cutoff Current	I <sub>CB0</sub>	V <sub>CB</sub> = 15V, I <sub>E</sub> = 0			1.0	μA
DC Current Gain	h <sub>FE</sub>	V <sub>CE</sub> = 2V, I <sub>C</sub> = 0.5A	70			
Gain-Bandwidth Product	f <sub>T</sub>	V <sub>CE</sub> = 2V, I <sub>C</sub> = 0.5A		150		MHz
Output Capacitance	C <sub>ob</sub>	V <sub>CB</sub> = 10V, f = 1MHz		15		pF
C-E Saturation Voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> = 500mA, I <sub>B</sub> = 10mA	0.16	0.3		V
B-E Saturation Voltage	V <sub>BE(sat)</sub>	I <sub>C</sub> = 500mA, I <sub>B</sub> = 10mA	0.85	1.2		V
C-B Breakdown Voltage	V <sub>(BR)CBO</sub>	I <sub>C</sub> = 10μA, I <sub>E</sub> = 0	20			V
C-E Breakdown Voltage	V <sub>(BR)CEO(1)</sub>	I <sub>C</sub> = 10μA, R <sub>BE</sub> = ∞	20			V
C-E Breakdown Voltage	V <sub>(BR)CEO(2)</sub>	I <sub>C</sub> = 10mA, R <sub>BE</sub> = ∞	15			V
Diode Forward Voltage	V <sub>F</sub>	I <sub>F</sub> = 0.5A			1.5	V
Base-to-Emitter Resistance	R <sub>BE</sub>			1.0		kΩ

Marking : BN

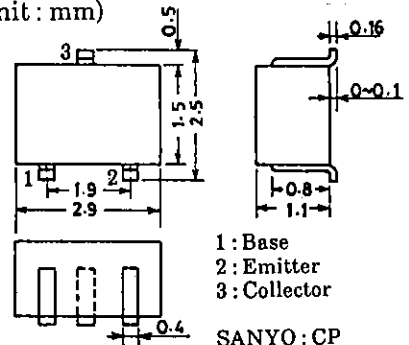
**Electrical Connection**



- 1: Base
- 2: Emitter
- 3: Collector

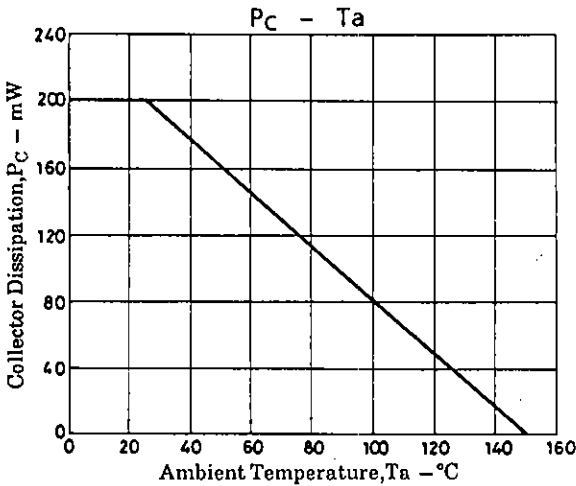
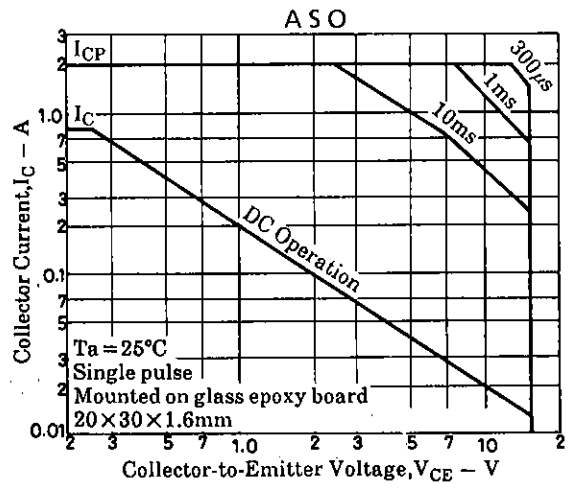
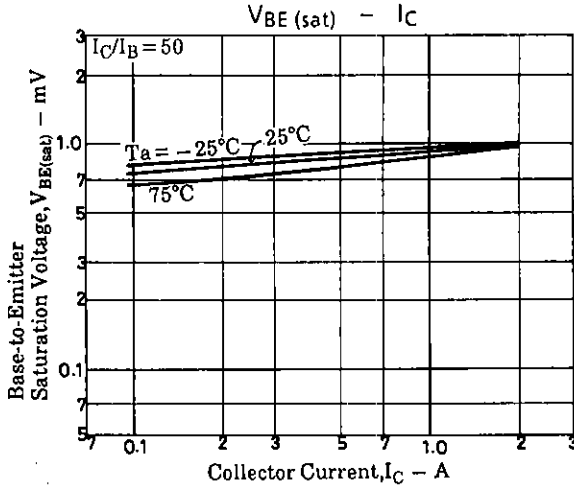
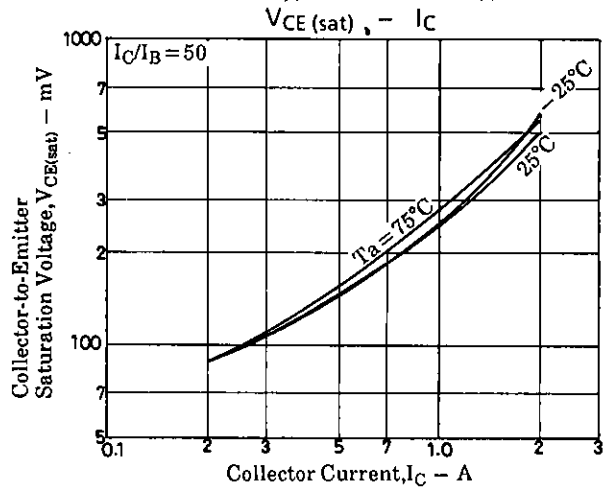
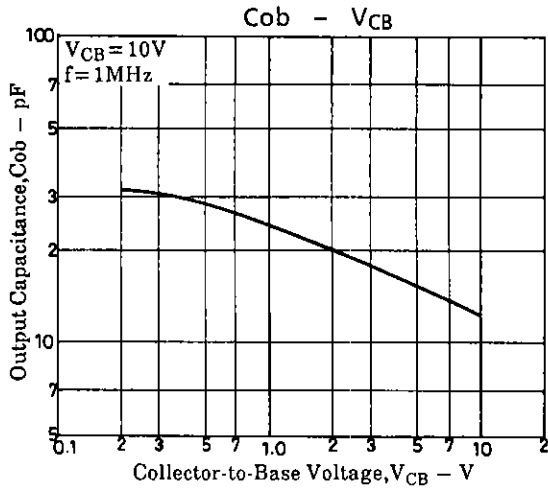
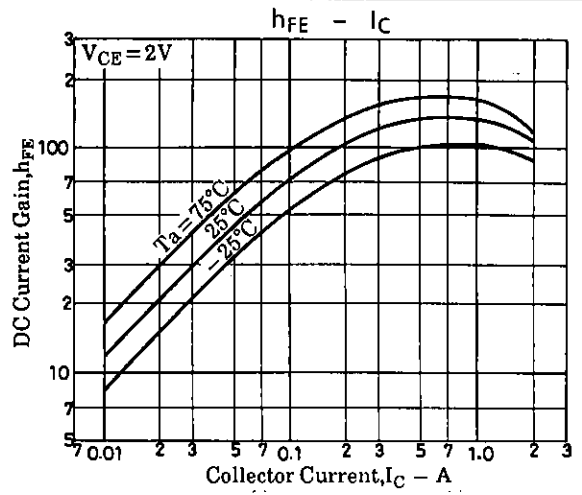
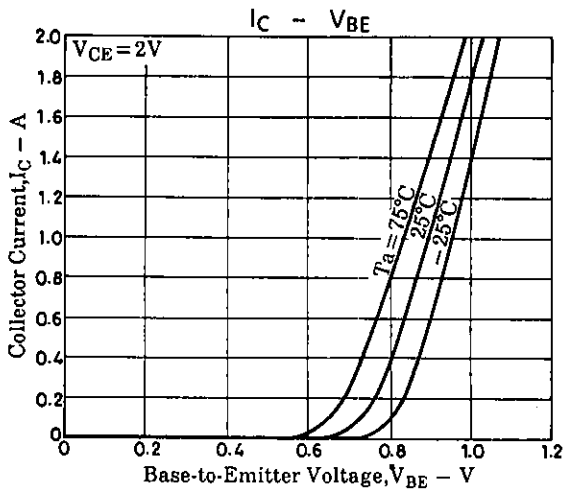
**Package Dimensions 2018B**

(unit : mm)



- 1: Base
- 2: Emitter
- 3: Collector

SANYO: CP



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