

**2SD1981****Driver Applications****Applications**

- Motor drivers, printer hammer drivers, relay drivers, voltage regulator control.

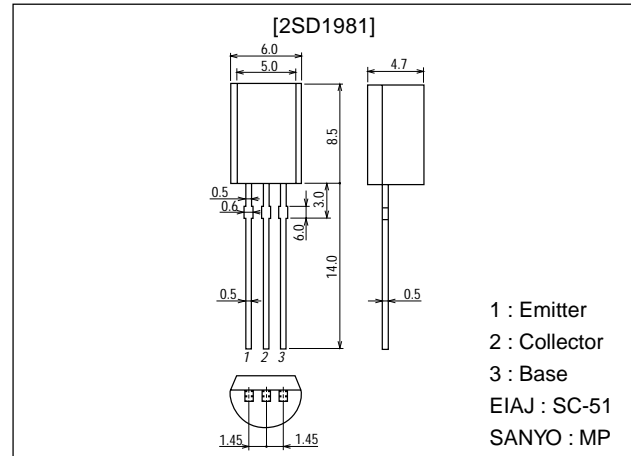
**Features**

- Darlington connection (on-chip bias resistance, damper diode).
- High DC current gain.
- Low dependence of DC current gain on temperature.

**Package Dimensions**

unit:mm

2006B

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

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	CBO		100	
Collector-to-Emitter Voltage	CEO		80	
Emitter-to-Base Voltage	EBO		6V	
Collector Current	C		2A	
Collector Current (Pulse)	CP		4A	
Collector Dissipation	C		1W	
Junction Temperature	T		150	°C
Storage Temperature	Tst		-55 to +150	°C

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

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector Cutoff Current	CBO	V <sub>CB</sub> =60V, I <sub>E</sub> =0			1A	μ
Emitter Cutoff Current	EBO	V <sub>EB</sub> =5V, I <sub>C</sub> =0			2A	m
DC Current Gain	h <sub>FE1</sub>	C <sub>E</sub> =3V, I <sub>C</sub> =500mA	1000			
	h <sub>FE2</sub>	C <sub>E</sub> =3V, I <sub>C</sub> =1A	2000	700	3000	
Collector-to-Emitter Saturation Voltage	C <sub>E</sub> (sat)	I <sub>C</sub> =1A, I <sub>B</sub> =2mA		1.0	1V	
Base-to-Emitter Saturation Voltage	B <sub>E</sub> (sat)	I <sub>C</sub> =1A, I <sub>B</sub> =2mA		1.0	2V	
Collector-to-Base Breakdown Voltage	(BR)CBO	I <sub>C</sub> =100μA, I <sub>E</sub> =0	100			
Collector-to-Emitter Breakdown Voltage	(BR)CEO	I <sub>C</sub> =25mA, R <sub>BE</sub> =∞	80			

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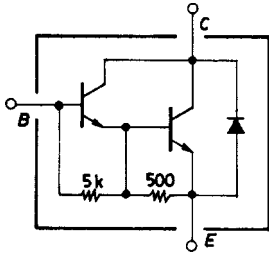
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TOKYO OFFICE Tokyo Bldg., 1-10, 1 Chome, Ueno, Taito-ku, TOKYO, 110-8534 JAPAN

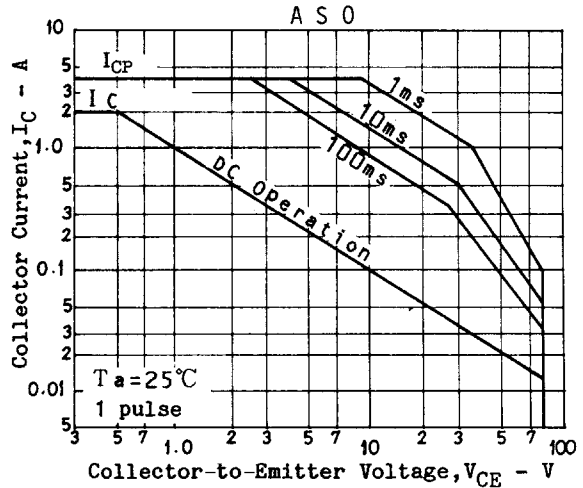
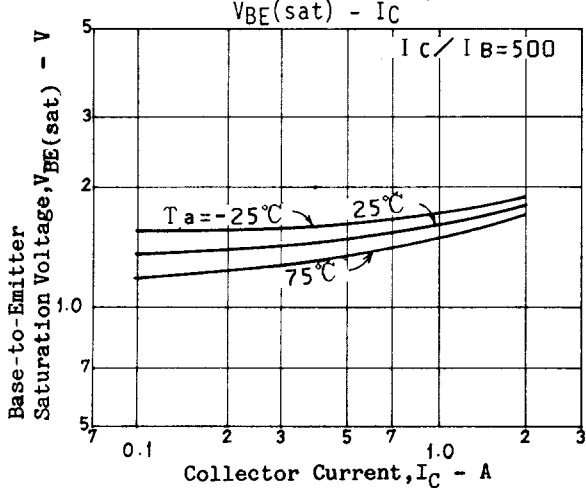
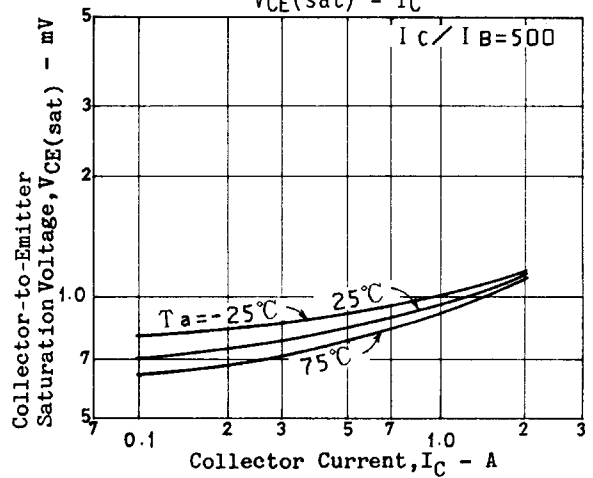
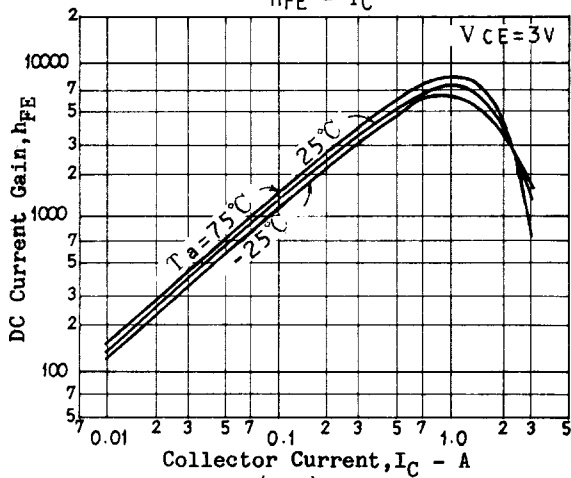
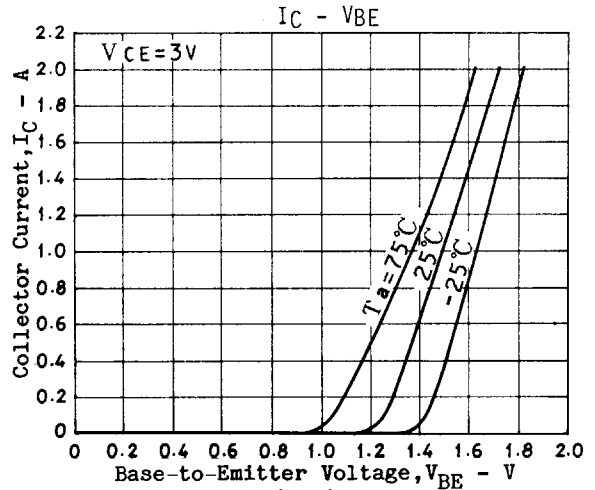
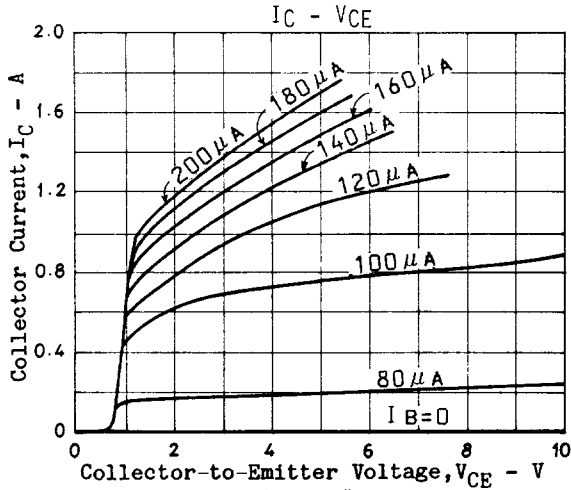
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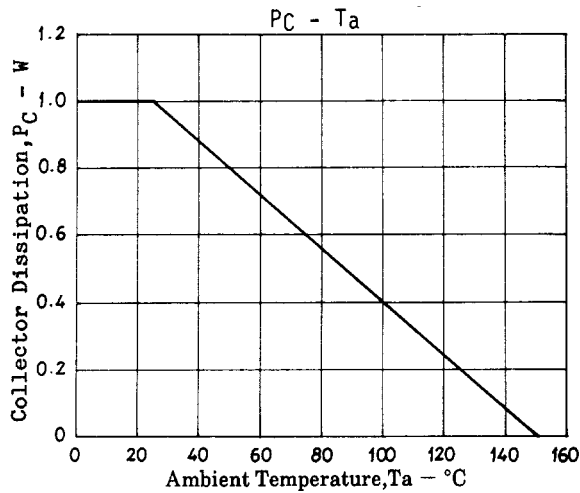
## Electrical Connection



Unit (resistance :  $\Omega$ )



## 2SD1981



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