NPN Epitaxial Planar Silicon Transistor



# 2SD1817

# **Driver Applications**

## Applications

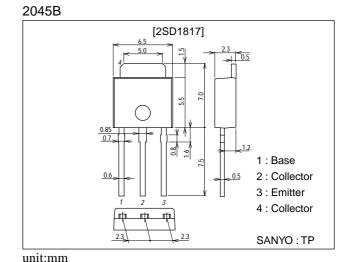
· Motor drivers, hammer drivers, relay drivers.

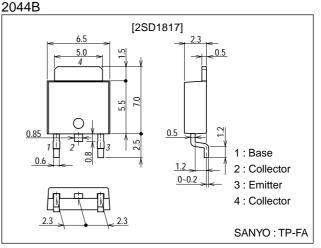
## **Features**

- · High DC current gain.
- Small and slim package permitting the 2SD1817applied sets to be made more compact.

# **Package Dimensions**

### unit:mm





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# Specifications

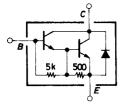
## Absolute Maximum Ratings at Ta = 25°C

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	V <sub>CBO</sub>		80	V
Collector-to-Emitter Voltage	VCEO		60	V
Emitter-to-Base Voltage	VEBO		6	V
Collector Current	Ι <sub>C</sub>		3	A
Collector Current (Pulse)	ICP		6	A
Collector Dissipation	PC		1	W
		Tc=25°C	15	W
Junction Temperature	Tj		150	°C
Storage Temperature	Tstg		-55 to +150	°C

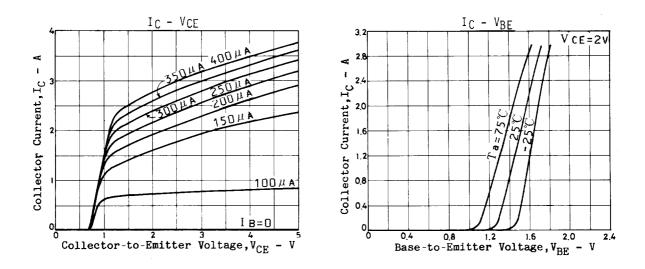
### Electrical Characteristics at Ta = 25°C

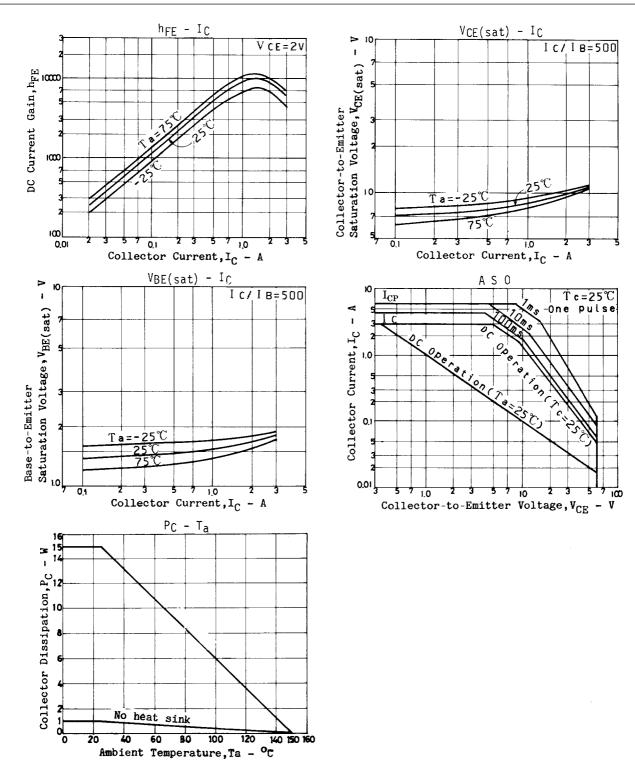
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector Cutoff Current	I <sub>CBO</sub>	V <sub>CB</sub> =60V, I <sub>E</sub> =0			10	μΑ
Emitter Cutoff Current	IEBO	$V_{EB}=5V, I_{C}=0$			2.5	mA
DC Current Gain	h <sub>FE</sub> 1	V <sub>CE</sub> =2V, I <sub>C</sub> =1A	2000			
	h <sub>FE</sub> 2	V <sub>CE</sub> =2V, I <sub>C</sub> =2A	1000			
Collector-to-Emitter Saturation Voltage	VCE(sat)	I <sub>C</sub> =2A, I <sub>B</sub> =4mA			1.5	V
Base-to-Emitter Saturation Voltage	V <sub>BE(sat)</sub>	I <sub>C</sub> =2A, I <sub>B</sub> =4mA			2.0	V
Collector-to-Base Breakdown Voltage	V(BR)CBO	I <sub>C</sub> =1mA, I <sub>E</sub> =0	80			V
Collector-to-Emitter Breakdown Voltage	V(BR)CEO	I <sub>C</sub> =25mA, R <sub>BE</sub> =∞	60			V

### **Electrical Connection**



 $Unit\,(resistance:\Omega)$ 





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