Ordering number:EN2369A

NPN Epitaxial Planar Silicon Transistor

2SD1817

Driver Applications

Applications

· Motor drivers, hammer drivers, relay drivers.

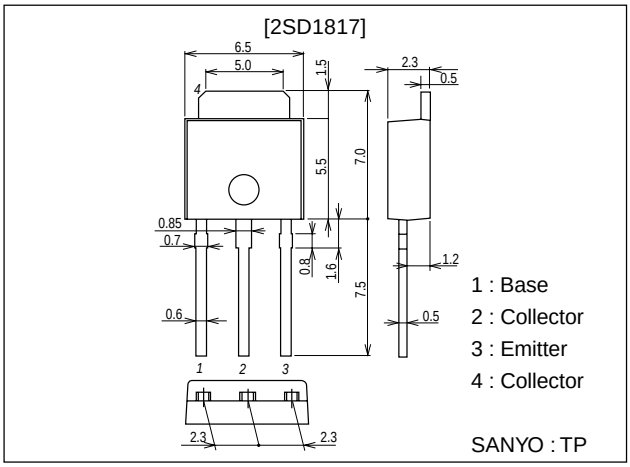
Features

· High DC current gain.
· Small and slim package permitting the 2SD1817-applied sets to be made more compact.

Package Dimensions

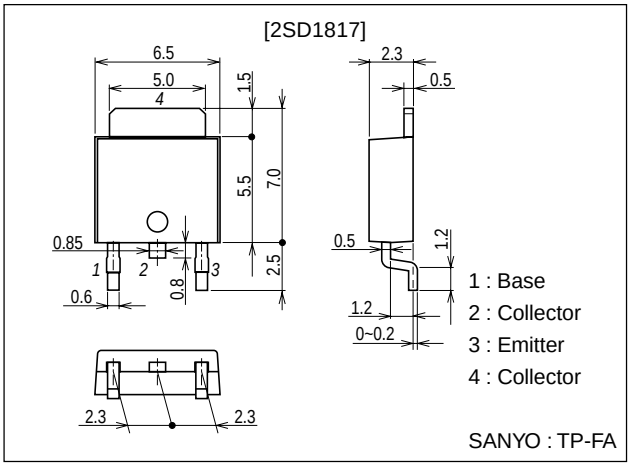
unit:mm

2045B



unit:mm

2044B



SANYO Electric Co.,Ltd. Semiconductor Bussiness Headquaters
TOKYO OFFICE Tokyo Bldg., 1-10, 1 Chome, Ueno, Taito-ku, TOKYO, 110-8534 JAPAN

Specifications

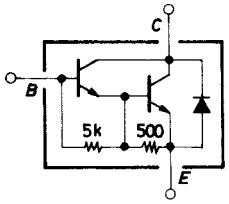
Absolute Maximum Ratings at Ta = 25˚C

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	V_{CBO}		80	V
Collector-to-Emitter Voltage	V_{CEO}		60	V
Emitter-to-Base Voltage	V_{EBO}		6	V
Collector Current	I_C		3	A
Collector Current (Pulse)	I_{CP}		6	A
Collector Dissipation	P_C		1	W
		Tc=25˚C	15	W
Junction Temperature	Tj		150	˚C
Storage Temperature	Tstg		–55 to +150	˚C

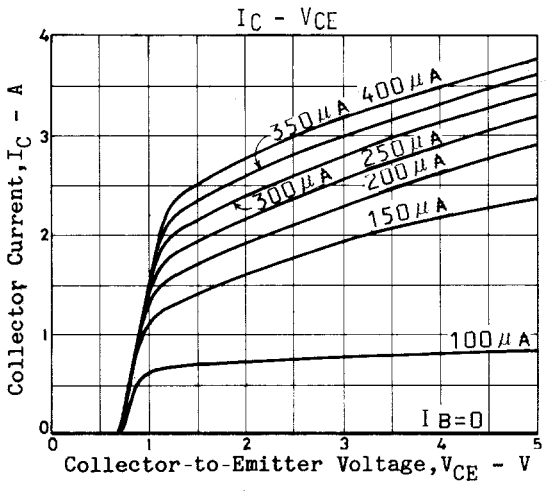
Electrical Characteristics at Ta = 25˚C

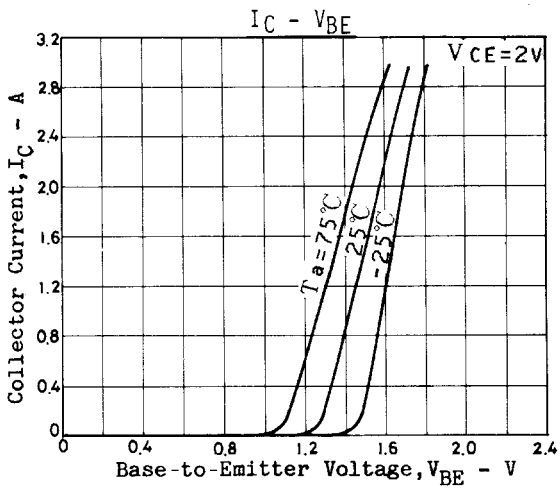
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector Cutoff Current	I_{CBO}	V_{CB}=60V, I_E=0			10	μA
Emitter Cutoff Current	I_{EBO}	V_{EB}=5V, I_C=0			2.5	mA
DC Current Gain	$h_{FE}1$	V_{CE}=2V, I_C=1A	2000			
	$h_{FE}2$	V_{CE}=2V, I_C=2A	1000			
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)}$	I_C=2A, I_B=4mA			1.5	V
Base-to-Emitter Saturation Voltage	$V_{BE(sat)}$	I_C=2A, I_B=4mA			2.0	V
Collector-to-Base Breakdown Voltage	$V_{(BR)CBO}$	I_C=1mA, I_E=0	80			V
Collector-to-Emitter Breakdown Voltage	$V_{(BR)CEO}$	I_C=25mA, R_{BE}=∞	60			V

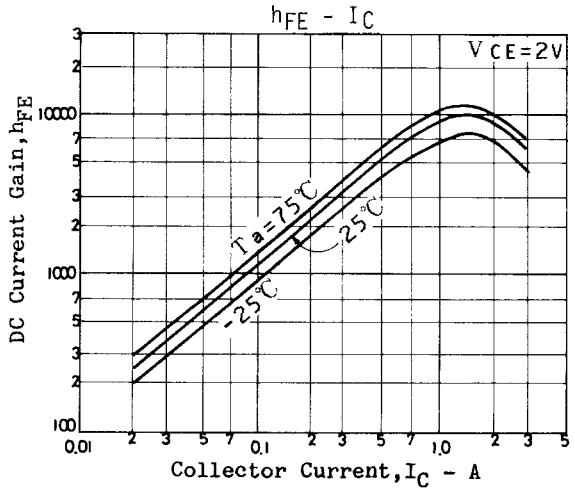
Electrical Connection

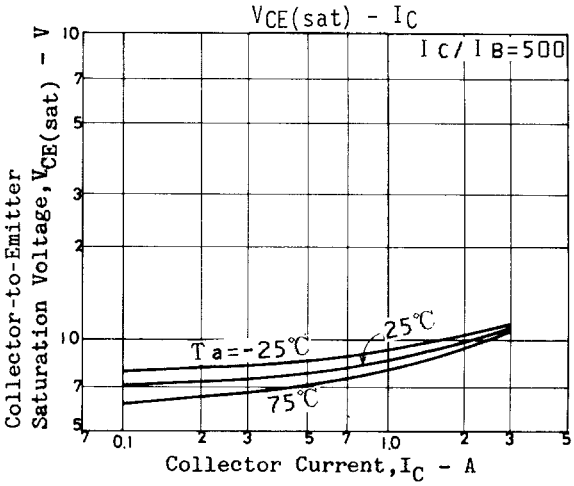


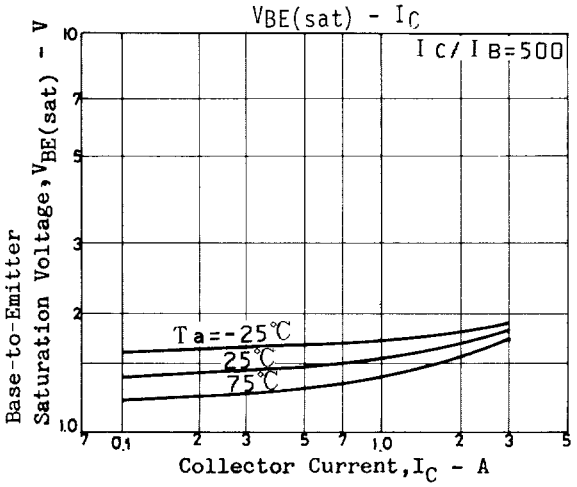
Unit (resistance : Ω)

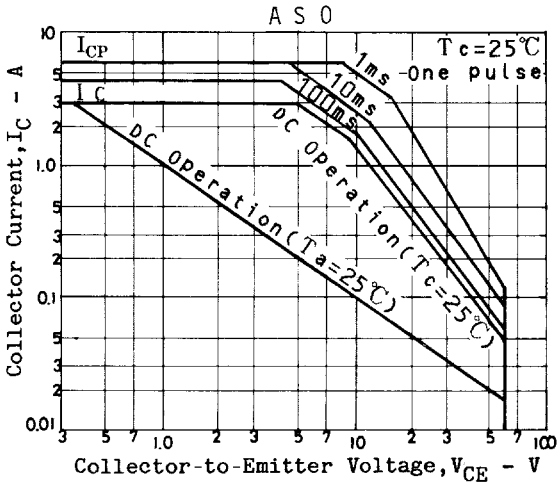


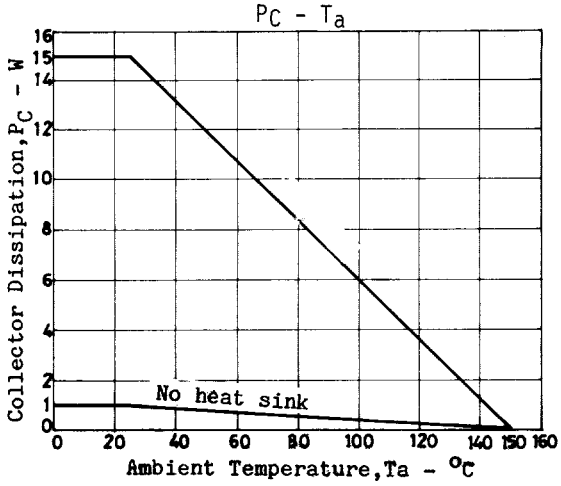



hFE - IC
VCE=2V
DC Current Gain, hFE
Ta=75℃
25℃
-25℃
Collector Current, IC - A


VCE(sat) - IC
IC/IB=500
Collector-to-Emitter Saturation Voltage, VCE(sat) - V
Ta=-25℃
25℃
75℃
Collector Current, IC - A


VBE(sat) - IC
IC/IB=500
Base-to-Emitter Saturation Voltage, VBE(sat) - V
Ta=-25℃
25℃
75℃
Collector Current, IC - A


A S O
ICP
IC
Tc=25℃
1ms
10ms
100ms
DC Operation
DC Operation (Tc=25℃)
DC Operation (Ta=25℃)
Collector Current, IC - A
Collector-to-Emitter Voltage, VCE - V


PC - Ta
Collector Dissipation, PC - W
No heat sink
Ambient Temperature, Ta - °C