Ordering number:EN2352A

PNP Epitaxial Planar Silicon Transistor

2SB1214

Driver Applications

Applications

· Motor drivers, hammer drivers, relay drivers.

Features

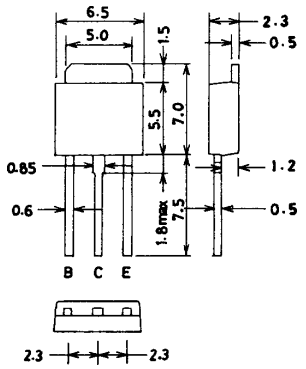
· High DC current gain.
· Darlington connection.
· Small and slim package permitting the 2SB1214-applied sets to be made more compact.

Package Dimensions

unit:mm

2045B

[2SB1214]



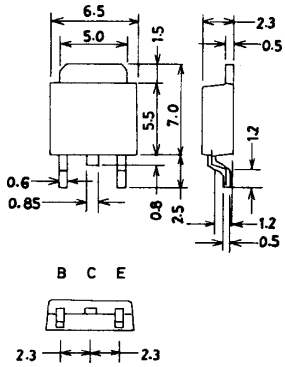
1 : Base
2 : Collector
3 : Emitter
4 : Collector

SANYO : TP

unit:mm

2044B

[2SB1214]



1 : Base
2 : Collector
3 : Emitter
4 : Collector

SANYO : TP-FA

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

Specifications

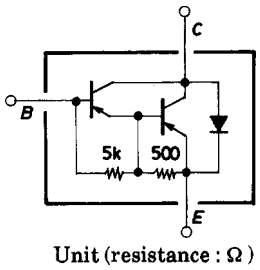
Absolute Maximum Ratings at Ta = 25˚C

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

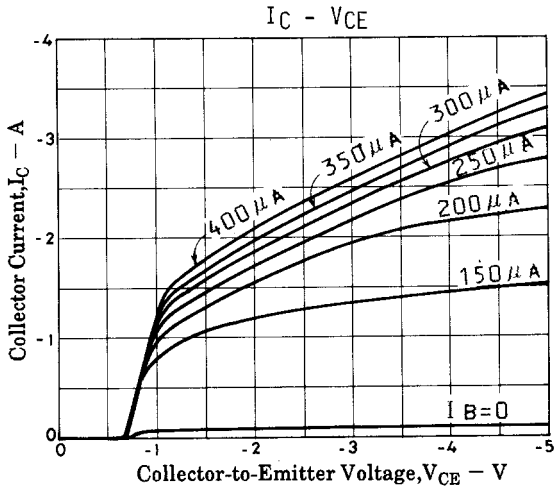
Electrical Characteristics at Ta = 25˚C

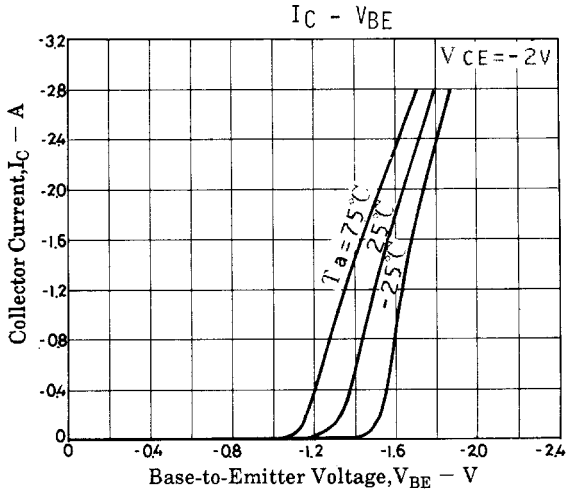
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector Cutoff Current	I_{CBO}	V_{CB}=–60V, I_E=0			–10	μA
Emitter Cutoff Current	I_{EBO}	V_{EB}=–5V, I_C=0			–2.5	mA
DC Current Gain	$h_{FE}1$	V_{CE}=–2V, I_C=–1A	2000			
	$h_{FE}2$	V_{CE}=–2V, I_C=–2A	1000			
Collector-to-Emitter Saturation 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

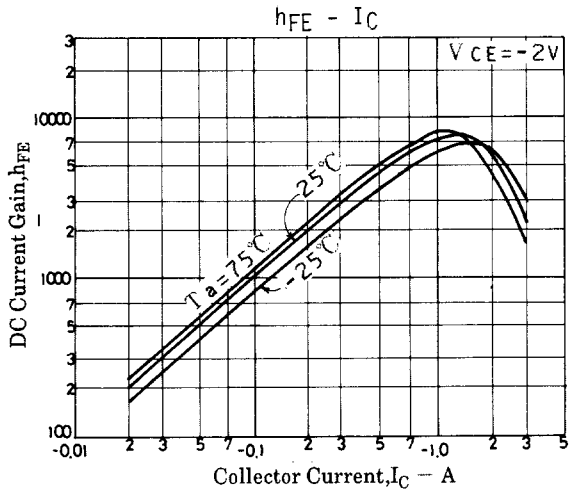
Electrical Connection

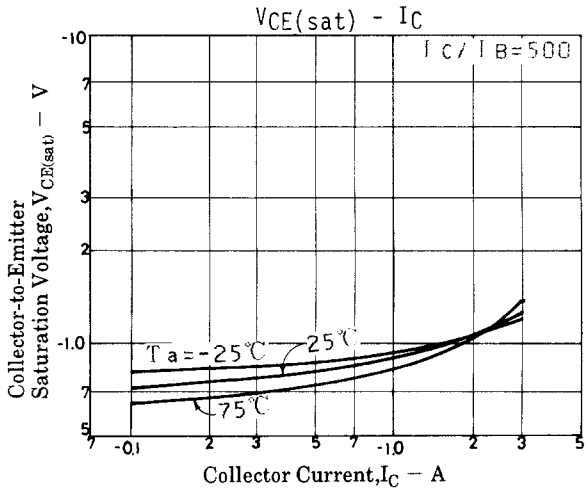


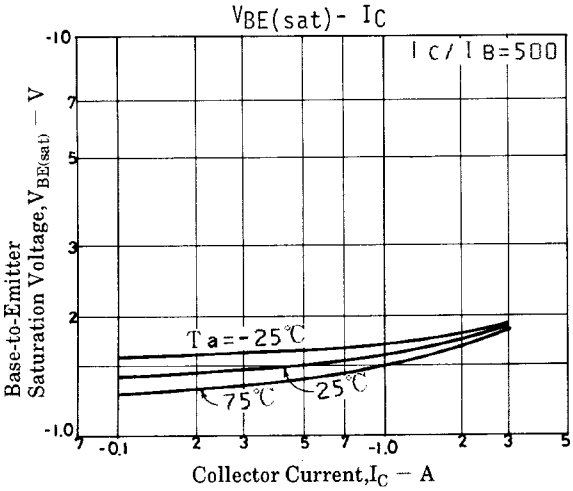
Unit (resistance : Ω)

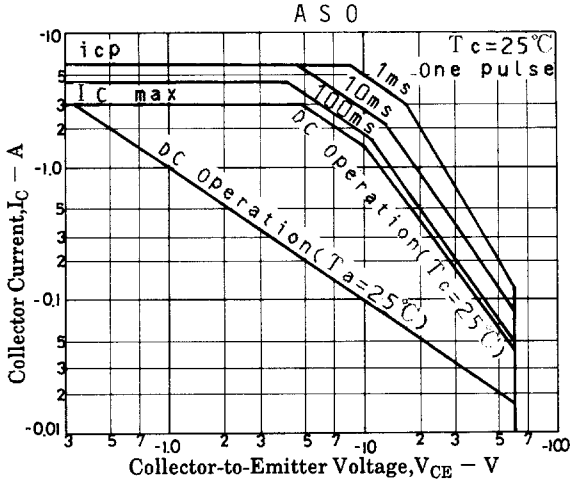


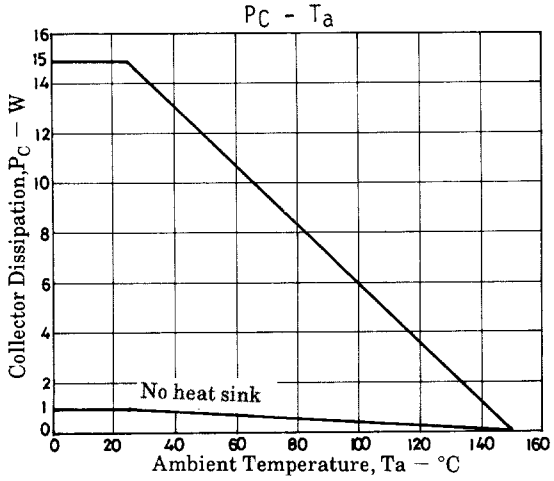



hFE - IC
VCE=-2V
Ta=75℃
25℃
-25℃
DC Current Gain,hFE
Collector Current,IC — A


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


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


A S O
icp
IC max
Tc=25℃
One pulse
1ms
10ms
100ms
DC operation(Tc=25℃)
DC operation(Ta=25℃)
Collector Current,IC — A
Collector-to-Emitter Voltage,VCE — V


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