Ordering number:EN3470

PNP Epitaxial Planar Silicon Darlington Transistor

2SB1406

Driver Applications

Applications

· Relay drivers, hammer drivers, lamp drivers, motor drivers.

Features

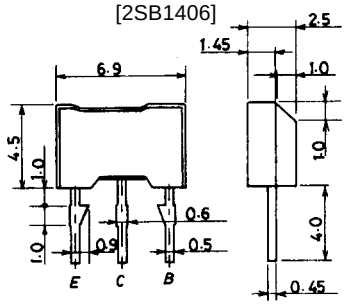
· Darlington connection.
· High DC current gain.
· Large current capacity.

Package Dimensions

unit:mm

2064

[2SB1406]



E : Emitter
C : Collector
B : Base
SANYO : NMP

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}		–50	V
Emitter-to-Base Voltage	V_{EBO}		–10	V
Collector Current	I_C		–1.5	A
Collector Current (Pulse)	I_{CP}		–3	A
Collector Dissipation	P_C		1	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}=–40V, I_E=0			–100	nA
Emitter Cutoff Current	I_{EBO}	V_{EB}=–6V, I_C=0			–100	nA
DC Current Gain	$h_{FE}1$	V_{CE}=–2V, I_C=–500mA	4000			
	$h_{FE}2$	V_{CE}=–2V, I_C=–10mA	3000			
Gain-Bandwidth Product	f_T	V_{CE}=–10V, I_C=–50mA		120		MHz
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)}$	I_C=–500mA, I_B=–0.5mA		–0.9	–1.5	V
Base-to-Emitter Saturation Voltage	$V_{BE(sat)}$	I_C=–500mA, I_B=–0.5mA		–1.5	–2.0	V

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Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector-to-Base Breakdown Voltage	$V_{(BR)CBO}$	I_C=–10μA, I_E=0	–80			V
Collector-to-Emitter Breakdown Voltage	$V_{(BR)CEO}$	I_C=–1mA, R_{BE}=∞	–50			V
Emitter-to-Base Breakdown Voltage	$V_{(BR)EBO}$	I_E=–10μA, I_C=0	–10			V

Electrical Connection