Ordering number:EN3973

PNP Epitaxial Planar Silicon Transistor

2SA1814

Low-Frequency General-Purpose Amplifier Driver, Muting Circuit Applications

Features

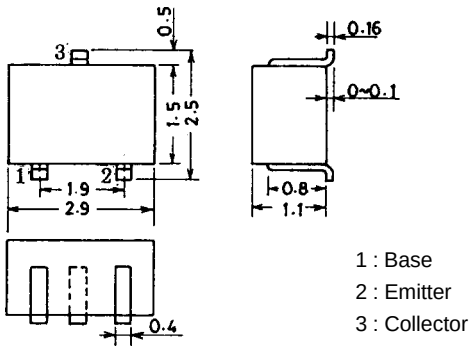
- Very small-sized package permitting 2SA1814-applied sets to be made smaller and slimmer.
- Adoption of FBET process.
- High DC current gain (h_{FE}=500 to 1200).
- Low collector-to-emitter saturation voltage ($V_{CEO(sat)}$≤0.3V).
- High V_{EBO} (V_{EBO}≥15V).

Package Dimensions

unit:mm

2018B

[2SA1814]



1 : Base
2 : Emitter
3 : Collector

SANYO : CP

Specifications

Absolute Maximum Ratings at Ta = 25˚C

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	V_{CBO}		–30	V
Collector-to-Emitter Voltage	V_{CEO}		–25	V
Emitter-to-Base Voltage	V_{EBO}		–15	V
Collector Current	I_C		–150	mA
Collector Current (Pulse)	I_{CP}		–300	mA
Base Current	I_B		–30	mA
Collector Dissipation	P_C	Mounted on board	250	mW
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}=–20V, I_E=0			–0.1	μA
Emitter Cutoff Current	I_{EBO}	V_{EB}=–10V, I_C=0			–0.1	μA
DC Current Gain	h_{FE}	V_{CE}=–5V, I_C=–1mA	500	800	1200	
Gain-Bandwidth Product	f_T	V_{CE}=–10V, I_C=–10mA		210		MHz
Output Capacitance	C_{ob}	V_{CB}=–10V, f=1MHz		2.6		pF
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)}$	I_C=–50mA, I_B=–1mA		–0.15	–0.3	V
Base-to-Emitter Saturation Voltage	$V_{BE(sat)}$	I_C=–50mA, I_B=–1mA		–0.78	–1.1	V

Marking : KS

SANYO Electric Co.,Ltd. Semiconductor Bussiness Headquaters
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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	–30			V
Collector-to-Emitter Breakdown Voltage	$V_{(BR)CEO}$	I_C=(–)1mA, R_{BE}=∞	–25			V
Emitter-to-Base Breakdown Voltage	$V_{(BR)EBO}$	I_E=(–)10μA, I_C=0	–15			V