PNP Epitaxial Planar Silicon Transistor

2SA1814



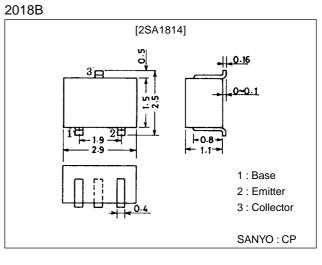
Low-Frequency General-Purpose Amplifier Driver, Muting Circuit Applications

Features

- Very small-sized package permitting 2SA1814applied sets to be made smaller and slimmer.
- \cdot Adoption of FBET process.
- High DC current gain (h_{FE} =500 to 1200).
- \cdot Low collector-to-emitter saturation voltage
- $(V_{CEO(sat)} \leq 0.3V).$
- · High V_{EBO} ($V_{EBO} \ge 15V$).

Package Dimensions

unit:mm



Specifications

Absolute Maximum Ratings at Ta = 25°C

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	VCBO		-30	V
Collector-to-Emitter Voltage	VCEO		-25	V
Emitter-to-Base Voltage	VEBO		-15	V
Collector Current	ι _C		-150	mA
Collector Current (Pulse)	ICP		-300	mA
Base Current	Ι _Β		-30	mA
Collector Dissipation	PC	Mounted on board	250	mW
Junction Temperature	Tj		150	°C
Storage Temperature	Tstg		–55 to +150	°C

Electrical Characteristics at Ta = 25°C

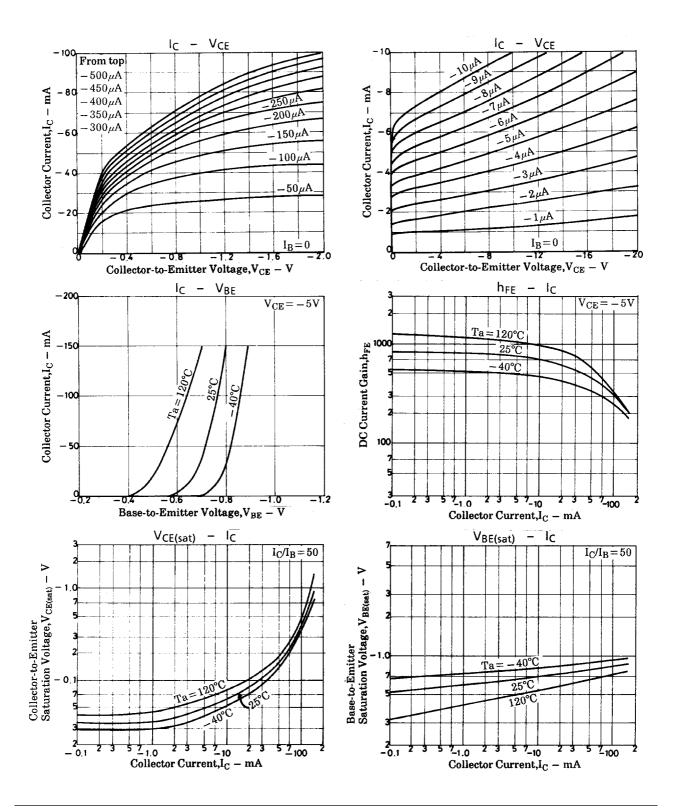
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	Unit
Collector Cutoff Current	I _{CBO}	V _{CB} =-20V, I _E =0			-0.1	μA
Emitter Cutoff Current	I _{EBO}	V _{EB} =-10V, I _C =0			-0.1	μA
DC Current Gain	h _{FE}	$V_{CE}=-5V, I_{C}=-1mA$	500	800	1200	
Gain-Bandwidth Product	fT	V _{CE} =-10V, I _C =-10mA		210		MHz
Output Capacitance	Cob	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

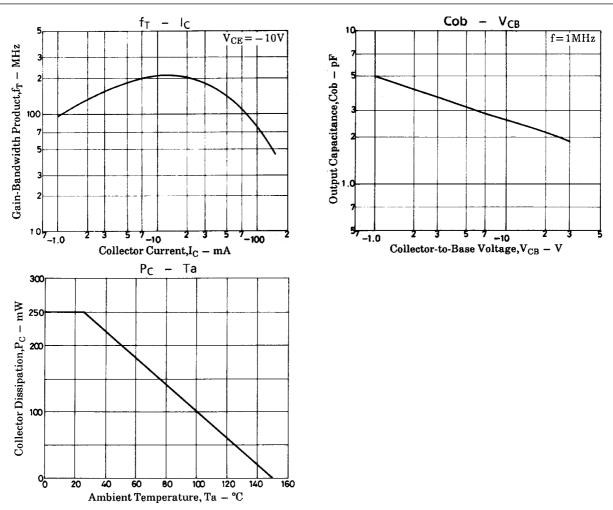
Marking : KS

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Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	Unit
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





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