

silicon transistor 2SB962-Z

PNP SILICON EPITAXIAL TRANSISTOR MP-3

DESCRIPTION

2SB962-Z is designed for Audio frequency amplifier and switching, especially in Hybrid Integrated Circuits.

FEATURE

Low Vce(sat) Vce(sat) = −0.3 V TYP.

QUALITY GRADE

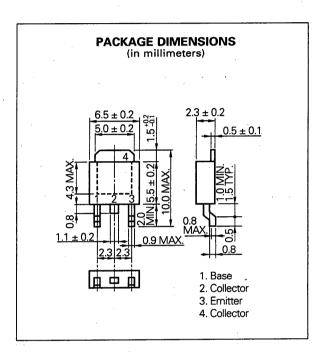
Standard

Please refer to "Quality grade on NEC Semiconductor Devices" (Document number IEI-1209) published by NEC Corporation to know the specification of quality grade on the devices and its recommended applications.

ABSOLUTE MAXIMUM RATINGS (Ta = 25 °C)

Collector to Base Voltage	Vсво	-40	٧
Collector to Emitter Voltage	VCEO	-30	٧
Emitter to Base Voltage	Vево	. –5	٧
Collector Current (DC)	lc	-3	Α
Collector Current (Pulse)*	Ic	-6	Α
Total Power Dissipation (Ta = 25 °C)**	P⊤	2.0	W
Junction Temperature	Tj	150	°C
Storage Temperature	Tstg	-55 to +150	°C

- * PW \leq 10 ms, Duty Cycle \leq 50 %
- ** When mounted on ceramic substrate of 7.5 cm² × 0.7 mm



ELECTRICAL CHARACTERISTICS (Ta = 25 °C)

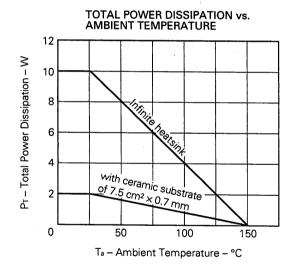
CHARACTERISTIC	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITIONS
Collector Cutoff Current	Ісво			-10	μΑ	VcB = -30 V, IE = 0
Emitter Cutoff Current	Ієво		-	-1.0	μΑ	VEB = -3.0 V, Ic = 0
DC Current Gain	hrei*	30	150			VcE = -2.0 V, Ic = -20 mA
DC Current Gain	hFE2*	60	160	400		Vce = -2.0 V, Ic = -1.0 A
Collector Saturation Voltage	VCE(sat)*		-0.3	-0.5	٧	Ic = -2.0 A, Is = -0.2 A
Base Saturation Voltage	VBE(sat)*		-1.0	-2.0	٧	Ic = -2.0 A, Is = -0.2 A
Gain Bandwidth Product	fr		80		MHz	Vce = -5.0 V, Ie = 100 mA
Output Capacitance	Сор		55		pF	VcB = −10 V, IE = 0, f = 1.0 MHz

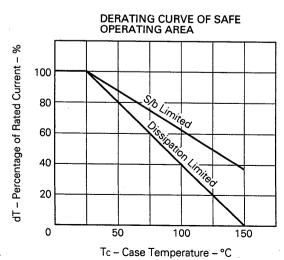
^{*} Pulsed: PW \leq 350 μ s, Duty Cycle \leq 2 %

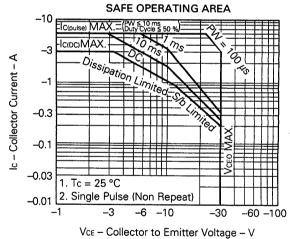
hre Classification

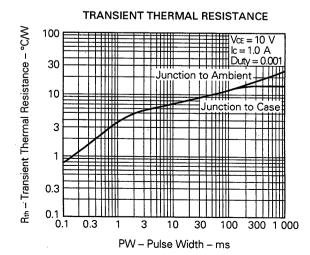
MARKING	R	Q	Р	E
hFE2	60 to 120	100 to 200	160 to 320	200 to 400

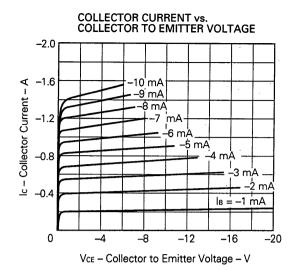
TYPICAL CHARACTERISTICS (Ta = 25 °C)

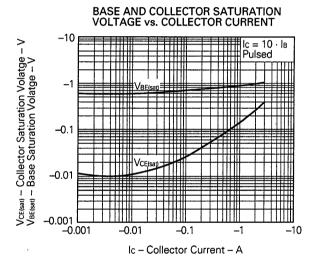


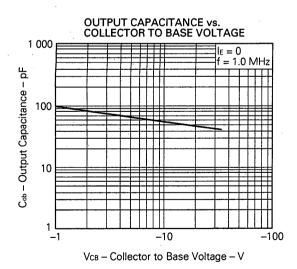


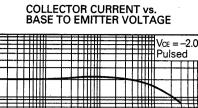


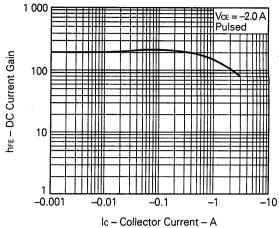




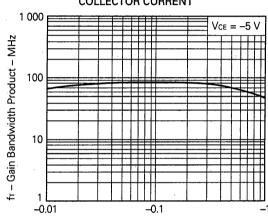












Ic - Collector Current - A



Reference

Application note name	No.
Quality control of NEC semiconductors devices.	TEI-1202
Quality control guide of semiconductors devices.	MEI-1202
Assembly manual of semiconductors devices.	IEI-1207
Design of Push-Pull Type Switching Regulators (Basic).	TEB-1002
Design of Push-Pull Type Switching Regulators (Applications).	TEB-1003
Optimum Base Drive Conditions of Switching Power Transistors.	TEB-1014

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Application examples recommended by NEC Corporation.

Standard: Computer, Office equipment, Communication equipment, Test and Measurement equipment, Machine tools, Industrial robots, Audio and Visual equipment, Other consumer products, etc.

Special: Automotive and Transportation equipment, Traffic control systems, Antidisaster systems, Anticrime systems, etc.

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