

SILICON TRANSISTOR

2SB962-Z

PNP SILICON EPITAXIAL TRANSISTOR

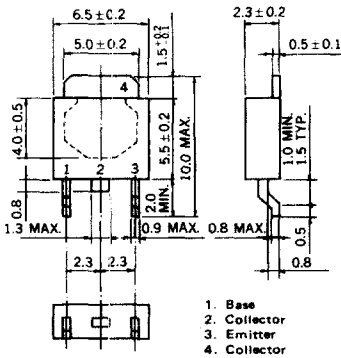
MP-3

DESCRIPTION

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

PACKAGE DIMENSIONS

in millimeters



FEATURE

- Low $V_{CE(sat)}$, $V_{CE(sat)} = -0.3$ V typ.

ABSOLUTE MAXIMUM RATINGS

Maximum Voltages and Currents ($T_a = 25^\circ\text{C}$)

Collector to Base Voltage	V_{CBO}	-40	V
Collector to Emitter Voltage	V_{CEO}	-30	V
Emitter to Base Voltage	V_{EBO}	-5	V
Collector Current (DC)	I_C	-3	A
Collector Current (Pulse)*	I_C	-6	A

Maximum Power Dissipation

Total Power Dissipation at 25°C Ambient Temperature**	P_T	2.0	W
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Maximum Temperatures

Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	-55 to +150	$^\circ\text{C}$

* $PW \leq 10$ ms, Duty Cycle $\leq 50\%$

**When mounted on ceramic substrate of $7.5\text{ cm}^2 \times 0.7$ mm

ELECTRICAL CHARACTERISTICS ($T_a = 25^\circ\text{C}$)

CHARACTERISTIC	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITIONS
Collector Cutoff Current	I_{CBO}			-10	μA	$V_{CB} = -30$ V, $I_E = 0$
Emitter Cutoff Current	I_{EBO}			-1.0	μA	$V_{EB} = -3.0$ V, $I_C = 0$
DC Current Gain	h_{FE1} ***	30	150			$V_{CE} = -2.0$ V, $I_C = -20$ mA
DC Current Gain	h_{FE2} ***	60	160	400		$V_{CE} = -2.0$ V, $I_C = -1.0$ A
Collector Saturation Voltage	$V_{CE(sat)}$ ***		-0.3	-0.5	V	$I_C = -2.0$ A, $I_B = -0.2$ A
Base Saturation Voltage	$V_{BE(sat)}$ ***		-1.0	-2.0	V	$I_C = -2.0$ A, $I_B = -0.2$ A
Gain Bandwidth Product	f_T		80		MHz	$V_{CE} = -5.0$ V, $I_E = 100$ mA
Output Capacitance	C_{ob}		55		pF	$V_{CB} = -10$ V, $I_E = 0$, $f = 1.0$ MHz

***Pulsed: $PW \leq 350$ μs , Duty Cycle $\leq 2\%$

h_{FE} Classification

MARKING	R	Q	P	E
h_{FE}	60 to 120	100 to 200	160 to 320	200 to 400

TYPICAL CHARACTERISTICS ($T_a = 25^\circ\text{C}$)

