

Silicon PNP Epitaxial Planar Type

2SB968

■ Features

- Possible to solder the radiation fin directly to printed circuit board.
- High collector-emitter voltage V_{CE0} .
- Large collector power dissipation P_c .

■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CB0}	-50	V
Collector-emitter voltage	V_{CE0}	-40	V
Emitter-base voltage	V_{EB0}	-5	V
Collector current	I_c	-1.5	A
Peak collector current	I_{CP}	-3	A
Collector power dissipation	P_c	10	W
Junction temperature	T_j	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 to +150	$^\circ\text{C}$

■ Electrical Characteristics $T_a = 25^\circ\text{C}$

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector-base voltage	V_{CB0}	$I_c = -1\text{ mA}, I_E = 0$	-50			V
Collector-emitter voltage	V_{CE0}	$I_c = -2\text{ mA}, I_B = 0$	-40			V
Collector-base cutoff current	I_{CB0}	$V_{CB} = -20\text{ V}, I_E = 0$			-1	μA
Collector cutoff current	I_{CE0}	$V_{CE} = -10\text{ V}, I_B = 0$			-100	μA
Emitter-base cutoff current	I_{EB0}	$V_{EB} = -5\text{ V}, I_c = 0$			-10	μA
Forward current transfer ratio	h_{FE}	$V_{CE} = -5\text{ V}, I_c = -1\text{ A}$	80		220	V
		$V_{CE} = -5\text{ V}, I_c = -1\text{ mA}$	10			V
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_c = -1.5\text{ A}, I_B = -0.15\text{ A}$			-1	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_c = -2\text{ A}, I_B = -0.2\text{ A}$			-1.5	V
Transition frequency	f_T	$V_{CE} = -5\text{ V}, I_c = -0.5\text{ A}, f = 200\text{ MHz}$		150		MHz
Collector output capacitance	C_{ob}	$V_{CB} = -20\text{ V}, I_E = 0, f = 1.0\text{ MHz}$		45		pF

■ h_{FE} Classification

Rank	Q	R
h_{FE}	80~160	120~220