

For Power Amplification (-60V , -3A)

2SB1565

●Structure

PNP Silicon Epitaxial Planar Transistor

●Features

- 1) Low $V_{CE(sat)}$.
- 2) Excellent electrical characteristics of DC current Gain h_{FE} .
- 3) Wide SOA.

●Applications

Low frequency power amplifier
Stereophonic output
Stabilization of power supply

●Absolute maximum ratings ($T_a=25^\circ\text{C}$)

Parameter	Symbol	Limits	Unit
Collector-base voltage	V_{CB0}	-60	V
Collector-emitter voltage	V_{CE0}	-60	V
Emitter-base voltage	V_{EB0}	-7	V
Collector current	DC	I_C	-3 A
	Pulse	I_{CP}	-6 A *1
Collector power dissipation	P_C	2	$W(T_a=25^\circ\text{C})$
		25	$W(T_c=25^\circ\text{C})$
Junction temperature	T_j	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 to +150	$^\circ\text{C}$

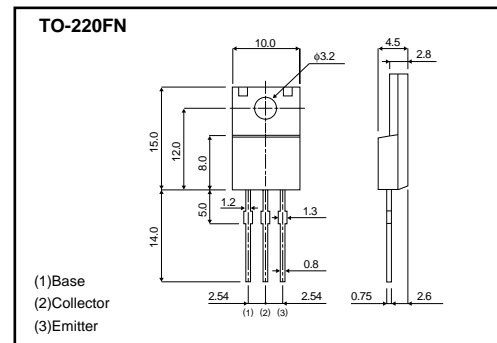
*1 $P_w=100\text{ms}$, non repetitive pulse

●Electrical characteristics ($T_a=25^\circ\text{C}$)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Collector-emitter breakdown voltage	BV_{CE0}	-60	-	-	V	$I_C=-1\text{mA}$
Collector-base breakdown voltage	BV_{CB0}	-60	-	-	V	$I_C=-50\mu\text{A}$
Emitter-base breakdown voltage	BV_{EB0}	-7	-	-	V	$I_E=-50\mu\text{A}$
Collector cutoff current	I_{CB0}	-	-	-10	μA	$V_{CB}=-60\text{V}$
Emitter cutoff current	I_{EB0}	-	-	-10	μA	$V_{EB}=-7\text{V}$
Collector-emitter saturation voltage	$V_{CE(sat)}$	-	-	-1.5	V	$I_C/I_B=-2A/-0.2A$ *1
DC current gain	h_{FE}	100	-	320	-	$V_{CE}=-5\text{V}$, $I_C=-0.5\text{A}$ *1,2
Transition frequency	f_T	-	15	-	MHz	$V_{CE}=-5\text{V}$, $I_E=0.5\text{A}$, $f=5\text{MHz}$ *1
Collector output capacitance	C_{ob}	-	50	-	pF	$V_{CB}=-10\text{V}$, $I_E=0\text{A}$, $f=1\text{MHz}$

*1 Single pulse *2 h_{FE} rank

●External dimensions (Unit : mm)



●Complements

PNP	NPN
2SB1565	2SD2394

●Packaging specifications and h_{FE}

Type	h_{FE}	Package	Taping
		Code	-
2SB1565	EF	Basic ordering unit (pieces)	500
			○

h_{FE} values are classified as follows:

Item	E	F
h_{FE}	100 to 200	160 to 320

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