

2SB1566

PNP Silicon Epitaxial Planar Transistor

- 1) Low $V_{CE(sat)}$.
- 2) Wide SOA.

- Relay drive
- DC-DC converter
- Stabilized power supply

Parameter		Symbol	Limits	Unit
Collector-base voltage		V_{CBO}	-60	V
Collector-emitter voltage		V_{CEO}	-50	V
Emitter-base voltage		V_{EBO}	-5	V
Collector current	DC	I_C	-3	A(DC)
	Pulse	I_{CP}	-4.5	A(Pulse)*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 Pw=100ms, single pulse

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Collector-emitter breakdown voltage	BV_{CEO}	-50	-	-	V	$I_C = -1mA$
Collector-base breakdown voltage	BV_{CBO}	-60	-	-	V	$I_C = -50\mu A$
Emitter-base breakdown voltage	BV_{EBO}	-5	-	-	V	$I_E = -50\mu A$
Collector cutoff current	I_{CBO}	-	-	-1.0	μA	$V_{CB} = -60V$
Emitter cutoff current	I_{EBO}	-	-	-1.0	μA	$V_{EB} = -4V$
Collector-emitter saturation voltage	$V_{CE(sat)}$	-	-	-1.0	V	$I_C/I_B = -2A/-0.2A$ *1
Base-emitter saturation voltage	$V_{BE(sat)}$	-	-	-1.5	V	$I_C/I_B = -2A/-0.2A$ *1
DC current gain	h_{FE}	100	-	320	-	$V_{CE} = -3V, I_C = -0.5A$
Transition frequency	f_T	-	60	-	MHz	$V_{CE} = -5V, I_E = 0.5A, f = 30MHz$ *1
Collector output capacitance	C_{ob}	-	40	-	pF	$V_{CB} = -10V, I_E = 0A, f = 1MHz$

*1 Pulse test

Technical drawing of the TO-220FN package showing front and side views with dimensions in millimeters.

Front View Dimensions:

- Top width: 10.0
- Top hole diameter: $\phi 3.2$
- Base width: 14.0
- Base to collector distance: 15.0
- Collector to emitter distance: 12.0
- Collector to emitter distance (alternative): 8.0
- Emitter to base distance: 5.0
- Emitter pin diameter: 1.2
- Collector pin diameter: 1.3
- Emitter pin spacing: 2.54
- Collector pin spacing: 2.54
- Emitter pin diameter (alternative): 0.8

Side View Dimensions:

- Top width: 4.5
- Top hole diameter: 2.8
- Base width: 0.75
- Base to collector distance: 2.6

Legend:

- (1) Base
- (2) Collector
- (3) Emitter

PNP	NPN
2SB1566	2SD2395

Type	hFE	Package	Taping
		Code	—
		Basic ordering unit (pieces)	500
2SB1566	EF		○

h_{FE} values are classified as follows:

Item	E	F
h _{EE}	100 to 200	160 to 320

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