

2SD2395

NPN Silicon Epitaxial Planar Transistor

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

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

Absolute Maximum Ratings (at 25°C)				
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(Ta=25°C)
			25	W(Tc=25°C)
Junction temperature		T_j	150	°C
Storage temperature		T_{stg}	-55 to +150	°C

*1 Pw=100ms, Single pulse

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: $\phi 3.2$
- Overall height: 15.0
- Distance from base to top hole center: 12.0
- Distance from base to mounting tab center: 8.0
- Base width: 5.0
- Mounting tab width: 1.2
- Distance between mounting tabs: 1.3
- Distance from base to mounting tab center: 0.8
- Base lead width: 2.54
- Lead spacing: (1) (2) (3)

Side View Dimensions:

- Top width: 4.5
- Top hole diameter: 2.8
- Base lead width: 0.75
- Lead spacing: 2.6

Legend:

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

PNP	NPN
2SB1566	2SD2395

Type	hFE	Package	Taping
		Code	—
		Basic ordering unit (pieces)	500
2SD2395	EF		○

h_{FE} values are classified as follows:

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

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	—	100	—	MHz	$V_{CE}=5V$, $I_E=-0.5A$, $f=30MHz$ *3
Collector output capacitance	C_{ob}	—	35	—	pF	$V_{CB}=10V$, $I_E=0A$, $f=1MHz$

*1 Pulse test

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