

## Transistors

## For Power Amplification (50V, 3A)

## 2SD2395

## ●Structure

NPN Silicon Epitaxial Planar Transistor

## ●Features

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

## ●Applications

Relay drive  
DC-DC converter  
Stabilized power supply

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

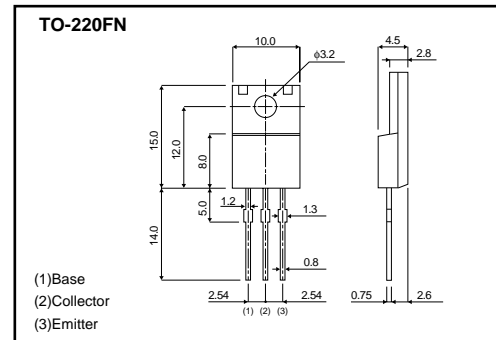
Parameter	Symbol	Limits	Unit
Collector-base voltage	$V_{CB0}$	60	V
Collector-emitter voltage	$V_{CE0}$	50	V
Emitter-base voltage	$V_{EB0}$	5	V
Collector current	DC	$I_c$	3 A(DC)
	Pulse	$I_{cP}$	4.5 A(Pulse)*1
Collector power dissipation	$P_c$	2	W( $T_a=25^\circ\text{C}$ )
		25	W( $T_c=25^\circ\text{C}$ )
Junction temperature	$T_j$	150	$^\circ\text{C}$
Storage temperature	$T_{stg}$	-55 to +150	$^\circ\text{C}$

\*1  $P_w=100\text{ms}$ , Single pulse●Electrical characteristics ( $T_a=25^\circ\text{C}$ )

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Collector-emitter breakdown voltage	$BV_{CE0}$	50	-	-	V	$I_c=1\text{mA}$
Collector-base breakdown voltage	$BV_{CB0}$	60	-	-	V	$I_c=50\mu\text{A}$
Emitter-base breakdown voltage	$BV_{EB0}$	5	-	-	V	$I_E=50\mu\text{A}$
Collector cutoff current	$I_{cB0}$	-	-	1.0	$\mu\text{A}$	$V_{CB}=60\text{V}$
Emitter cutoff current	$I_{EB0}$	-	-	1.0	$\mu\text{A}$	$V_{EB}=4\text{V}$
Collector-emitter saturation voltage	$V_{CE(sat)}$	-	-	1.0	V	$I_c/I_B=2\text{A}/0.2\text{A}$ *1
Base-emitter saturation voltage	$V_{BE(sat)}$	-	-	1.5	V	$I_c/I_B=2\text{A}/0.2\text{A}$ *1
DC current gain	$h_{FE}$	100	-	320	-	$V_{CE}=3\text{V}$ , $I_c=0.5\text{A}$
Transition frequency	$f_T$	-	100	-	MHz	$V_{CE}=5\text{V}$ , $I_E=-0.5\text{A}$ , $f=30\text{MHz}$ *1
Collector output capacitance	$C_{ob}$	-	35	-	pF	$V_{CB}=10\text{V}$ , $I_E=0\text{A}$ , $f=1\text{MHz}$

\*1 Pulse test

## ●External dimensions (Unit : mm)



## ●Complements

PNP	NPN
2SB1566	2SD2395

●Packaging specifications and  $h_{FE}$ 

Type	$h_{FE}$	Package	Taping
		Code	-
2SD2395	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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