

Power Transistor (50V, 3A)

2SD2395

●Features

- 1) Low saturation voltage, typically $V_{CE(sat)} = 0.2V$ at $I_C / I_E = 2A / 0.2A$.
- 2) Wide SOA (safe operating area).
- 3) Complements the 2SB1566.

●Packaging specifications and h_{FE}

Type	2SD2395
Package	TO-220FN
h_{FE}	EF
Code	—
Basic ordering unit (pieces)	500

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

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	I_C	3	A (DC)
	I_{CP}	4.5	A (Pulse) *
Collector power dissipation	P_C	2	W
Junction temperature	T_J	150	$^\circ C$
Storage temperature	T_{STG}	-55 ~ +150	$^\circ C$

* Single pulse, $P_w = 100ms$

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

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Collector-base breakdown voltage	BV_{CBO}	60	—	—	V	$I_C = 50 \mu A$
Collector-emitter breakdown voltage	BV_{CEO}	50	—	—	V	$I_C = 1mA$
Emitter-base breakdown voltage	BV_{EBO}	5	—	—	V	$I_E = 50 \mu A$
Collector cutoff current	I_{CBO}	—	—	1	μA	$V_{CB} = 40V$
Emitter cutoff current	I_{EBO}	—	—	1	μA	$V_{EB} = 4V$
Collector-emitter saturation voltage	$V_{CE(sat)}$	—	—	1	V	$I_C/I_E = 2A/0.2A$ *
Base-emitter saturation voltage	$V_{BE(sat)}$	—	—	1.5	V	$I_C/I_E = 2A/0.2A$ *
DC current transfer ratio	h_{FE}	100	—	320	—	$V_{CE}/I_C = 5V/0.5A$
Transition frequency	f_T	—	100	—	MHz	$V_{CE} = 5V, I_E = -0.5A, f = 30MHz$ *
Output capacitance	C_{OB}	—	35	—	pF	$V_{CB} = 10V, I_E = 0A, f = 1MHz$

* Measured using pulse current

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