

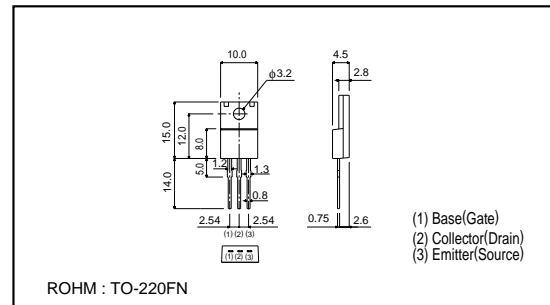
Power Transistor (60V, 3A)

2SD2394

●Features

- 1) Low saturation voltage.
(Typ. $V_{CE(sat)} = 0.3V$ at $I_C / I_B = 2A / 0.2A$)
- 2) Excellent DC current gain characteristics.
- 3) Wide SOA (safe operating area).

●External dimensions (Units : mm)



●Absolute maximum ratings (Ta = 25°C)

Parameter	Symbol	Limits	Unit
Collector-base voltage	V_{CBO}	80	V
Collector-emitter voltage	V_{CEO}	60	V
Emitter-base voltage	V_{EBO}	7	V
Collector current	I_C	3	A(DC)
	I_{CP}	6	A(Pulse) *
Collector power dissipation	P_C	2	W
		25	W(Tc=25°C)
Junction temperature	T_J	150	°C
Storage temperature	T_{stg}	-55 ~ +150	°C

* Single pulse, Pw=100ms

●Packaging specifications and hFE

Type	2SD2394
Package	TO-220FN
hFE	EF
Code	-
Basic ordering unit (pieces)	500

●Electrical characteristics (Ta = 25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Collector-base breakdown voltage	BV_{CBO}	80	-	-	V	$I_C = 50\mu A$
Collector-emitter breakdown voltage	BV_{CEO}	60	-	-	V	$I_C = 1mA$
Emitter-base breakdown voltage	BV_{EBO}	7	-	-	V	$I_E = 50\mu A$
Collector cutoff current	I_{CBO}	-	-	10	μA	$V_{CB} = 60V$
Emitter cutoff current	I_{EBO}	-	-	10	μA	$V_{EB} = 7V$
Collector-emitter saturation voltage	$V_{CE(sat)}$	-	-	1	V	$I_C / I_B = 2A / 0.2A$
	$V_{CE(sat)}$	-	-	0.8	V	
Base-emitter saturation voltage	$V_{BE(sat)}$	-	-	1.5	V	$I_C / I_B = 2A / 0.2A$ *
DC current transfer ratio	h_{FE}	100	-	320	-	$V_{CE} / I_C = 5V / 0.5A$
Transition frequency	f_r	-	8	-	MHz	$V_{CE} = 5V, I_E = -0.5A, f = 5MHz$
Output capacitance	C_{ob}	-	35	-	pF	$V_{CB} = 10V, I_E = 0A, f = 1MHz$ *

* Measured using pulse current.