

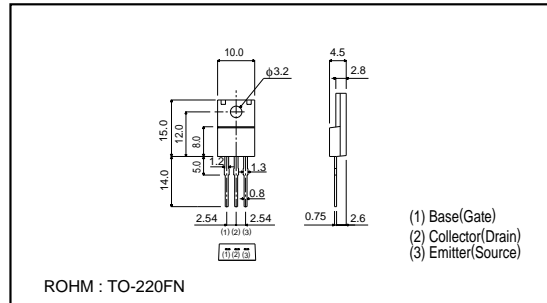
# Power Transistor (60V, 3A)

## 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	$\mu A$	$V_{CB} = 60V$
Emitter cutoff current	$I_{EBO}$	-	-	10	$\mu A$	$V_{EB} = 7V$
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.