

Transistors

# Power Transistor (−80V, −7A)

## 2SB1672

●Features

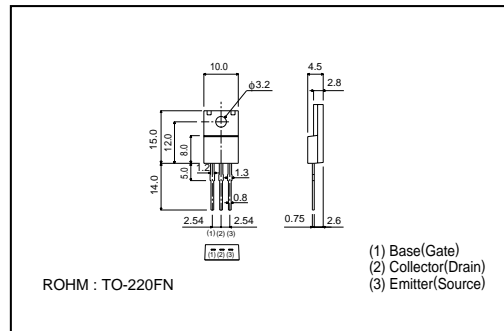
- 1) Low saturation voltage.  
(Typ.  $V_{CE(sat)} = -0.3V$  at  $I_c / I_b = -4A / -0.4A$ )
- 2) Excellent DC current gain characteristics.
- 3)  $P_c = 30W$  ( $T_c = 25^\circ C$ ).
- 4) Wide SOA (safe operating area).
- 5) Complements the 2SD2611.

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

Parameter	Symbol	Limits	Unit
Collector-base voltage	$V_{CBO}$	−80	V
Collector-emitter voltage	$V_{CEO}$	−80	V
Emitter-base voltage	$V_{EBO}$	−5	V
Collector current	$I_c$	−7	A(DC)
		−10	A(Pulse) *
Collector power dissipation	$P_c$	2	W
		30	W( $T_c = 25^\circ C$ )
Junction temperature	$T_j$	150	$^\circ C$
Storage temperature	$T_{stg}$	−55 ~ +150	$^\circ C$

\* Single pulse,  $P_w = 100ms$

●External dimensions (Units : mm)



●Packaging specifications and  $h_{FE}$

Type	2SB1672
Package	TO-220FN
$h_{FE}$	EF
Code	—
Basic ordering unit (pieces)	500

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

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Collector-base breakdown voltage	$BV_{CBO}$	−80	—	—	V	$I_c = -50\mu A$
Collector-emitter breakdown voltage	$BV_{CEO}$	−80	—	—	V	$I_c = -1mA$
Emitter-base breakdown voltage	$BV_{EBO}$	−5	—	—	V	$I_E = -50\mu A$
Collector cutoff current	$I_{CBO}$	—	—	−10	$\mu A$	$V_{CB} = -80V$
Emitter cutoff current	$I_{EBO}$	—	—	−10	$\mu A$	$V_{EB} = -4V$
Collector-emitter saturation voltage	$V_{CE(sat)}$	—	—	−1	V	$I_c / I_b = -4A / -0.4A$ *
Base-emitter saturation voltage	$V_{BE(sat)}$	—	—	−1.5	V	$I_c / I_b = -4A / -0.4A$ *
DC current transfer ratio	$h_{FE}$	100	—	320	—	$V_{CE} / I_c = -5V / -1A$
Transition frequency	$f_T$	—	12	—	MHz	$V_{CE} = -5V, I_E = 0.5A, f = 5MHz$
Output capacitance	$C_{ob}$	—	200	—	pF	$V_{CB} = -10V, I_E = 0A, f = 1MHz$

\* Measured using pulse current