

# Power Transistor (80V, 7A)

## 2SD2611

### ●Features

- 1) Low saturation voltage, typically  $V_{CE(sat)} = 0.3V$  at  $I_C / I_B = 4 / 0.4A$ .
- 2) Excellent DC current gain characteristics.
- 3)  $P_C = 30W$  ( $T_C = 25^\circ C$ )
- 4) Wide SOA (safe operating area).
- 5) Complements the 2SB1672.

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

Parameter	Symbol	Limits	Unit
Collector-base voltage	$V_{CBO}$	100	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,  $P_w=100ms$

### ●Packaging specifications and $h_{FE}$

Type	2SD2611
Package	TO-220FN
$h_{FE}$	DEF
Code	-
Basic ordering unit (pieces)	500

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

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Collector-base breakdown voltage	$BV_{CBO}$	100	-	-	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	$\mu A$	$V_{CB} = 100V$
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	$h_{FE}$	60	-	320	-	$V_{CE} = 5V, I_C = 1A$ *
Transition frequency	$f_T$	-	5	-	MHz	$V_{CE} = 5V, I_E = -0.5A, f = 5MHz$ *
Output capacitance	$C_{ob}$	-	150	-	pF	$V_{CB} = 10V, I_E = 0A, f = 1MHz$

\* Measured using pulse current