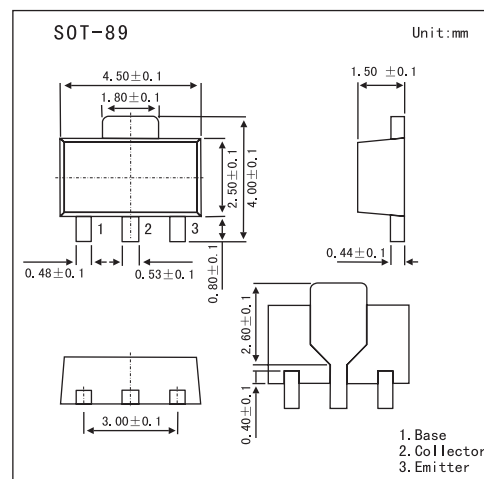


Power Transistor

2SD2211

■ Features

- High breakdown voltage.($B_{V_{CE0}} = 160V$)
- Low collector output capacitance.
(Typ. 20pF at $V_{CB} = 10V$)
- High transition frequency.($f_T = 80MHz$)

■ Absolute Maximum Ratings $T_a = 25^{\circ}C$

Parameter	Symbol	Rating	Unit
Collector to base voltage	V_{CBO}	160	V
Collector to emitter voltage	V_{CEO}	160	V
Emitter to base voltage	V_{EBO}	5	V
Collector current	I_C	1.5	A(DC)
Collector current	I_C	3	A(Pulse)*1
Collector power dissipation	P_C	0.5	W
		2*2	W
Junction temperature	T_j	150	$^{\circ}C$
Storage temperature	T_{stg}	-55 to 150	$^{\circ}C$

*1 $P_w=200msec$ duty=1/2

*2 When mounted on a 40 X 40 X 0.7mm ceramic board.

2SD2211■ Electrical Characteristics $T_a = 25^\circ\text{C}$

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector to base breakdown voltage	$V_{(BR)CBO}$	$I_C = 50\mu\text{A}$	160			V
Collector to emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = 1\text{mA}$	160			V
Emitter to base breakdown voltage	$V_{(BR)EBO}$	$I_E = 50\mu\text{A}$	5			V
Collector cutoff current	I_{CBO}	$V_{CB} = 120\text{V}$			1	μA
Emitter cutoff current	I_{EBO}	$V_{EB} = 4\text{V}$			1	μA
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C/I_B = 1\text{A}/0.1\text{A}$			2	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C/I_B = 1\text{A}/0.1\text{A}$			1.5	V
DC current transfer ratio	h_{FE}	$V_{CE}/I_C = 5\text{V}/0.1\text{A}$	120		390	
Transition frequency	f_T	$V_{CE} = 5\text{V}$, $I_E = -0.1\text{A}$, $f = 30\text{MHz}$		80		MHz
Output capacitance	C_{ob}	$V_{CB} = 10\text{V}$, $I_E = 0\text{A}$, $f = 1\text{MHz}$		20		pF

■ hFE Classification

Marking	DQQ	DQR
Rank	Q	R
hFE	120~270	180~390