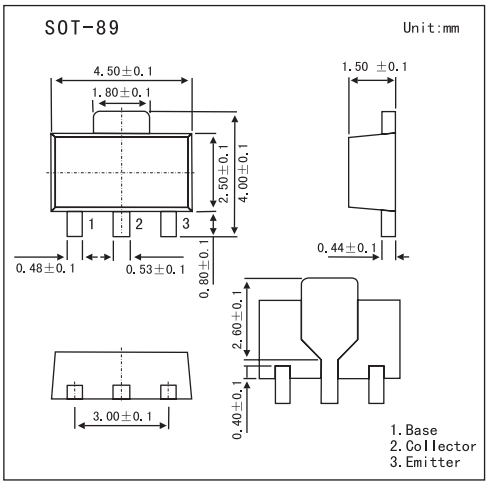
Power Transistor

2SD2211



■ Features

- High breakdown voltage.(BV_{CEO} = 160V)
- Low collector output capacitance.
  (Typ. 20pF at V_{CB} = 10V)
- High transition frequency.(f_T = 80MHZ)

■ Absolute Maximum Ratings Ta = 25℃

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	℃
Storage temperature	T_{stg}	-55 to 150	℃

*1 Pw=200msec duty=1/2

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

2SD2211

■ Electrical Characteristics Ta = 25℃

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

■ h_{FE} Classification

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