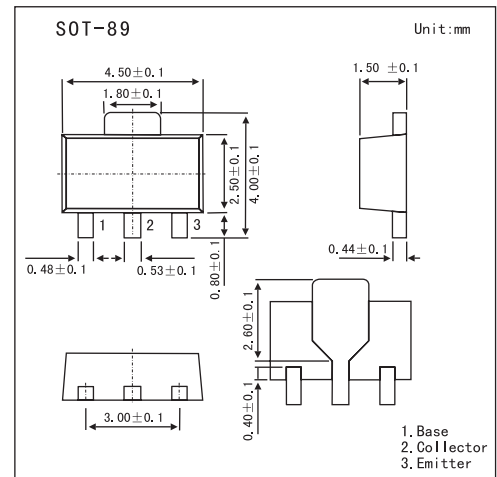


# 2SD2210

### ■ Features

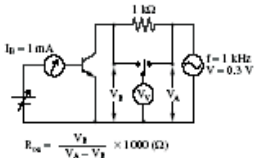
- Low collector-emitter saturation voltage  $V_{CE(sat)}$
- Low on resistance  $r_{on}$ .
- High forward current transfer ratio  $h_{FE}$ .



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

Parameter	Symbol	Rating	Unit
Collector-base voltage	$V_{CBO}$	25	V
Collector-emitter voltage	$V_{CEO}$	20	V
Emitter-base voltage	$V_{EBO}$	12	V
Collector current	$I_C$	1	A
Peak collector current	$I_{CP}$	0.5	A
Collector power dissipation	$P_C$	1	W
Junction temperature	$T_j$	150	$^\circ\text{C}$
Storage temperature	$T_{stg}$	-55 to +150	$^\circ\text{C}$

■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Collector-base cutoff current	ICBO	V <sub>CB</sub> = 25 V, I <sub>E</sub> = 0			1	μA
Collector-base voltage	V <sub>CB0</sub>	I <sub>C</sub> = 10 μA, I <sub>E</sub> = 0	25			V
Collector-emitter voltage	V <sub>CE0</sub>	I <sub>C</sub> = 1 mA, I <sub>B</sub> = 0	20			V
Emitter-base voltage	V <sub>EB0</sub>	I <sub>E</sub> = 10 μA, I <sub>C</sub> = 0	12			V
Forward current transfer ratio	h <sub>FE</sub>	V <sub>CE</sub> = 2 V, I <sub>C</sub> = 0.5 A	200		800	
Collector-emitter saturation voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> = 0.5 A, I <sub>B</sub> = 20 mA		0.13	0.4	V
Base-emitter saturation voltage	V <sub>BE(sat)</sub>	I <sub>C</sub> = 0.5 A, I <sub>B</sub> = 20 mA			1.2	V
Transition frequency	f <sub>T</sub>	V <sub>CB</sub> = 10 V, I <sub>E</sub> = -50 mA, f = 200 MHz		200		MHz
Collector output capacitance	C <sub>ob</sub>	V <sub>CB</sub> = 10 V, I <sub>E</sub> = 0, f = 1 MHz		10		pF
ON resistance	R <sub>on</sub>			1.0		Ω

■ hFE Classification

Marking	IK		
Rank	R	S	T
hFE	200~350	300~500	400~800