

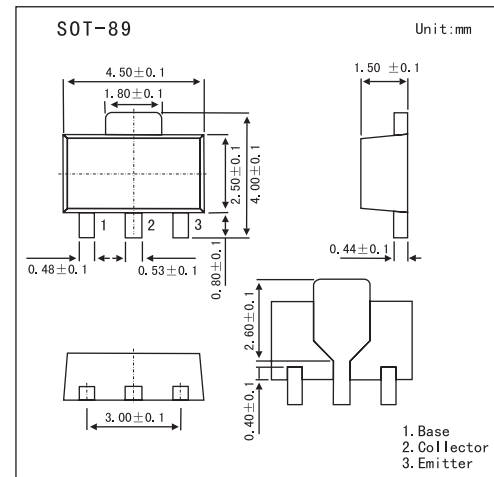
NPN Silicon Power Transistor

2SD882

■ Features

- Excellent hFE linearity and high hFE

$h_{FE} = 60$ to 400 ($V_{CE} = 2\text{ V}$, $I_C = 1\text{ A}$)

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

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	40	V
Collector to Emitter Voltage	V_{CEO}	30	V
Emitter to Base Voltage	V_{EBO}	6	V
Collector Current to Continuous	I_C	3	A
Collector Dissipation	P_C	0.5	W
Junction Temperature	T_J	150	$^\circ\text{C}$
Storage Temperature	T_{stg}	-55 to 150	$^\circ\text{C}$

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

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	V_{CBO}	$I_C=100\mu\text{A}$, $I_E=0$	40			V
Collector-emitter breakdown voltage	V_{CEO}	$I_C=10\text{ mA}$, $I_B=0$	30			V
Emitter-base breakdown voltage	V_{EBO}	$I_E=100\mu\text{A}$, $I_C=0$	6			V
Collector cut-off current	I_{CBO}	$V_{CB}=40\text{ V}$, $I_E=0$			1	μA
Collector cut-off current	I_{CEO}	$V_{CE}=30\text{ V}$, $I_B=0$			10	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=6\text{ V}$, $I_C=0$			1	μA
DC current gain	h_{FE}	$V_{CE}=2\text{ V}$, $I_C=1\text{ A}$	60		400	
		$V_{CE}=2\text{ V}$, $I_C=100\text{ mA}$	32			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=2\text{ A}$, $I_B=0.2\text{ A}$			0.5	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C=2\text{ A}$, $I_B=0.2\text{ A}$			1.5	V
Transition frequency	f_T	$V_{CE}=5\text{ V}$, $I_C=0.1\text{ mA}$, $f=10\text{ MHz}$	50			MHz

■ hFE Classification

Rank	R	O	P	E
hFE	60~120	100~200	160~320	200~400