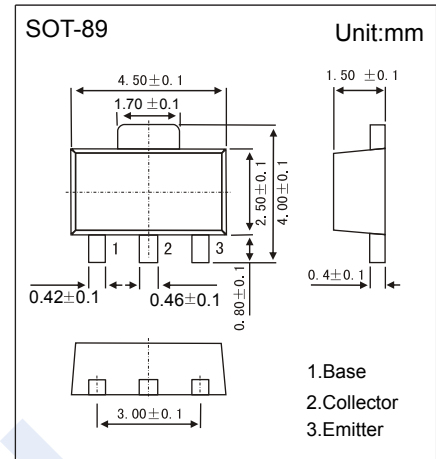


## NPN Transistors

## 2SD968

## ■ Features

- Collector Current Capability  $I_c=500\text{mA}$
- Collector Emitter Voltage  $V_{CE0}=100\text{V}$
- Complementary to 2SB789

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

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	$V_{CBO}$	100	V
Collector - Emitter Voltage	$V_{CEO}$	100	
Emitter - Base Voltage	$V_{EBO}$	5	
Collector Current - Continuous	$I_C$	0.5	A
Collector Current - Pulse	$I_{CP}$	1	
Collector Power Dissipation	$P_C$	1	W
Junction Temperature	$T_J$	150	$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	-55 to 150	

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	$V_{CBO}$	$I_c = 100 \mu\text{A}, I_E = 0$	100			V
Collector- emitter breakdown voltage	$V_{CEO}$	$I_c = 1 \text{ mA}, I_B = 0$	100			
Emitter - base breakdown voltage	$V_{EBO}$	$I_E = 100 \mu\text{A}, I_C = 0$	5			
Collector-base cut-off current	$I_{CBO}$	$V_{CB} = 100 \text{ V}, I_E = 0$			0.1	$\mu\text{A}$
Emitter cut-off current	$I_{EBO}$	$V_{EB} = 5 \text{ V}, I_C = 0$			0.1	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 500 \text{ mA}, I_B = 50 \text{ mA}$			0.6	V
Base - emitter saturation voltage	$V_{BE(sat)}$	$I_C = 500 \text{ mA}, I_B = 50 \text{ mA}$			1.2	
DC current gain	$h_{FE}$	$V_{CE} = 10 \text{ V}, I_C = 150 \text{ mA}$	90		220	
		$V_{CE} = 5 \text{ V}, I_C = 500 \text{ mA}$	50			
Collector output capacitance	$C_{ob}$	$V_{CB} = 10 \text{ V}, I_E = 0, f = 1 \text{ MHz}$			20	$\text{pF}$
Transition frequency	$f_T$	$V_{CB} = 10 \text{ V}, I_E = -50 \text{ mA}, f = 200 \text{ MHz}$		120		MHz

■ Classification of  $h_{fe}(1)$ 

Type	2SD968-Q	2SD968-R
Range	90-155	130-220
Marking	WQ	WR

# NPN Transistors

## 2SD968

### Typical Characteristics

