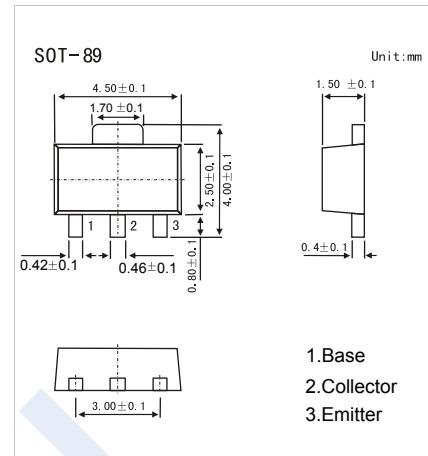


NPN Transistors**2SC2982****■ Features**

- Low saturation voltage
- Small flat package
- $P_c = 1.0$ to 2.0 W (mounted on a ceramic substrate)
- Complementary to 2SA1314

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

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V_{CBO}	30	V
Collector - Emitter Voltage	V_{CEO}	10	
Emitter - Base Voltage	V_{EBO}	6	
Collector Current - Continuous	I_C	2	A
Collector Current - Pulse (Note.1)	I_{CP}	4	
Collector Power Dissipation	P_c	500	mW
Junction Temperature	T_J	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	-55 to 150	

Note 1: Pulse test: Pulse width = 10 ms (max), duty cycle = 30% (max)

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	V_{CBO}	$I_C = 1 \text{ mA}, I_E = 0$	30			V
Collector-emitter breakdown voltage	V_{CEO}	$I_C = 10 \text{ mA}, I_B = 0$	10			
Emitter-base breakdown voltage	V_{EBO}	$I_E = 1 \text{ mA}, I_C = 0$	6			
Collector-Base cut-off current	I_{CBO}	$V_{CB} = 30 \text{ V}, I_E = 0$			0.1	uA
Emitter cut-off current	I_{EBO}	$V_{EB} = 6 \text{ V}, I_C = 0$			0.1	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 2 \text{ A}, I_B = 50 \text{ mA}$		0.2	0.5	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C = 2 \text{ A}, I_B = 50 \text{ mA}$			1.2	
Base-emitter voltage	V_{BE}	$V_{CE} = 1 \text{ V}, I_C = 2 \text{ A}$		0.86	1.5	
DC current gain		$V_{CE} = 1 \text{ V}, I_C = 0.5 \text{ A}$	140		600	
		$V_{CE} = 1 \text{ V}, I_C = 2 \text{ A}$	70	140		
Collector output capacitance	C_{ob}	$V_{CB} = 10 \text{ V}, I_E = 0, f = 1 \text{ MHz}$		27		pF
Transition frequency	f_T	$V_{CE} = 1 \text{ V}, I_C = 0.5 \text{ A}$		150		MHz

■ Classification of $h_{FE}(1)$

Type	2SC2982-A	2SC2982-B	2SC2982-C	2SC2982-D
Range	140-240	200-330	300-450	420-600
Marking	SA*	SB*	SC*	SD*

NPN Transistors

2SC2982

■ Typical Characteristics

