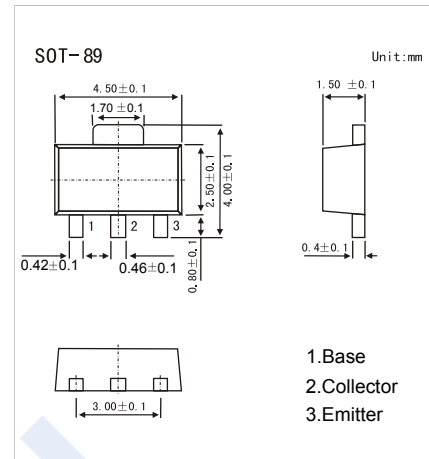


## PNP Transistors

### 2SA1945

#### ■ Features

- High voltage
- High  $f_T$ ,  $f_T=150\text{MHz}$ (typ)
- High collector current  $I_{CM}=-600\text{mA}$
- Small package for mounting
- Complements to 2SC5211



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

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	$V_{CB0}$	-55	V
Collector - Emitter Voltage	$V_{CE0}$	-50	
Emitter - Base Voltage	$V_{EB0}$	-4	
Collector Current - Continuous	$I_C$	-400	mA
Collector Current - Pulse	$I_{CM}$	-600	
Collector Power Dissipation	$P_C$	0.5	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	$V_{CB0}$	$I_C = -100 \mu\text{A}$ , $I_E = 0$	-55			V
Collector- emitter breakdown voltage	$V_{CE0}$	$I_C = -1 \text{ mA}$ , $R_{BE} = \infty$	-50			
Emitter - base breakdown voltage	$V_{EB0}$	$I_E = -100 \mu\text{A}$ , $I_C = 0$	-4			
Collector-base cut-off current	$I_{CB0}$	$V_{CB} = -25 \text{ V}$ , $I_E = 0$			-1	$\mu\text{A}$
Emitter cut-off current	$I_{EB0}$	$V_{EB} = -4 \text{ V}$ , $I_C = 0$			-1	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -200 \text{ mA}$ , $I_B = -10 \text{ mA}$		-0.17	-0.5	V
Base - emitter saturation voltage	$V_{BE(sat)}$	$I_C = -200 \text{ mA}$ , $I_B = -10 \text{ mA}$			-1.2	
DC current gain	$h_{FE}$	$V_{CE} = -4 \text{ V}$ , $I_C = -100 \text{ mA}$	90		500	
Transition frequency	$f_T$	$V_{CE} = -10 \text{ V}$ , $I_E = 10 \text{ mA}$		150		MHz

#### ■ Classification of $h_{FE}$

Type	2SA1945-D	2SA1945-E	2SA1945-F
Range	90-180	150-300	250-500
Marking	ZD	ZE	ZF

### PNP Transistors

### 2SA1945

■ Typical Characteristics

