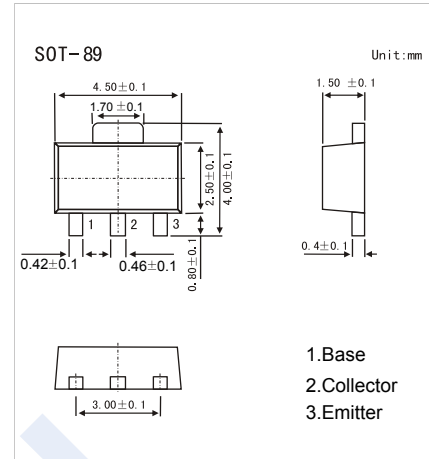


PNP Transistors

2SA1946

■ Features

- Low collector saturation voltage
- High f_T , $f_T=180\text{MHz}(\text{typ})$
- High collector current $I_{CM}=-1\text{A}$
- Small package for mounting
- Complements to 2SC5212



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

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V_{CB0}	-25	V
Collector - Emitter Voltage	V_{CE0}	-20	
Emitter - Base Voltage	V_{EB0}	-4	
Collector Current - Continuous	I_C	-0.7	A
Collector Current - Pulse	I_{CM}	-1	
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}	$I_C = -100\ \mu\text{A}$, $I_E = 0$	-25			V
Collector-emitter breakdown voltage	V_{CE0}	$I_C = -1\ \text{mA}$, $R_{BE} = \infty$	-20			
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	μA
Emitter cut-off current	I_{EB0}	$V_{EB} = -4\ \text{V}$, $I_C = 0$			-1	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -500\text{mA}$, $I_B = -25\text{mA}$		-0.25	-0.5	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C = -500\text{mA}$, $I_B = -25\text{mA}$			-1.2	
DC current gain	h_{FE}	$V_{CE} = -4\text{V}$, $I_C = -100\text{mA}$	150		800	
Transition frequency	f_T	$V_{CE} = -6\text{V}$, $I_E = 10\text{mA}$		180		MHz

■ Classification of h_{FE}

Type	2SA1946-E	2SA1946-F	2SA1946-G
Range	150-300	250-500	400-800
Marking	AAE	AAF	AAG

PNP Transistors

2SA1946

■ Typical Characteristics

