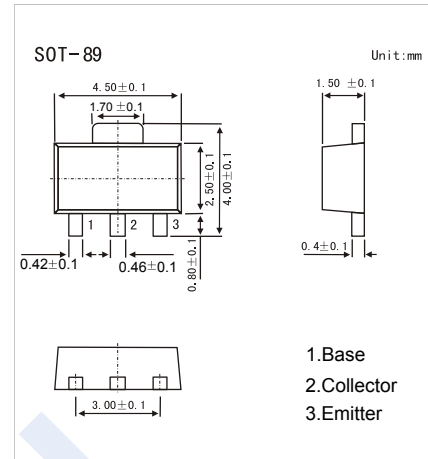


PNP Transistors

2SA1947-HF

■ Features

- High f_T , $f_T=100\text{MHz}(\text{typ})$
- High collector current $I_{CM}=-1.5\text{A}$
- Small package for mounting
- Complements to 2SC5214-HF
- Pb-Free Package May be Available. The G-Suffix Denotes a Pb-Free Lead Finish



■ 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}	-25	
Emitter - Base Voltage	V_{EBO}	-4	
Collector Current - Continuous	I_C	-1	A
Collector Current - Pulse	I_{CM}	-1.5	
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_{CBO}	$I_C = -100\ \mu\text{A}$, $I_E = 0$	-30			V
Collector- emitter breakdown voltage	V_{CEO}	$I_C = -1\ \text{mA}$, $R_{BE} = \infty$	-25			
Emitter - base breakdown voltage	V_{EBO}	$I_E = -100\ \mu\text{A}$, $I_C = 0$	-4			
Collector-base cut-off current	I_{CBO}	$V_{CB} = -25\ \text{V}$, $I_E = 0$			-1	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = -4\ \text{V}$, $I_C = 0$			-1	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -500\text{mA}$, $I_B = -25\text{mA}$			-0.5	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}	$V_{CE} = -1\text{V}$, $I_C = -500\text{mA}$	55		300	
Transition frequency	f_T	$V_{CE} = -6\text{V}$, $I_E = 10\text{mA}$		100		MHz

■ Classification of h_{FE}

Type	2SA1947-C-HF	2SA1947-D-HF	2SA1947-E-HF
Range	55-110	90-180	150-300
Marking	ABC _F	ABD _F	ABE _F

PNP Transistors

2SA1947-HF

■ Typical Characteristics

