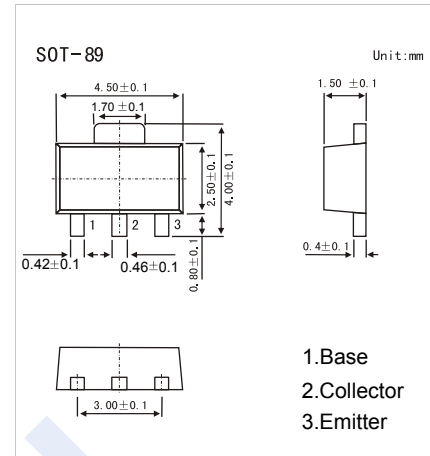


## PNP Transistors

### 2SA1204-HF

#### ■ Features

- Suitable For Output Stage of 1 Watts Amplifier
- Small Flat Package
- $P_c = 1$  to 2W (mounted on ceramic substrate)
- Complementary to 2SC2884-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	$V_{CB0}$	-35	V
Collector-Emitter Voltage	$V_{CE0}$	-30	V
Emitter-Base Voltage	$V_{EB0}$	-5	V
Collector Current	$I_C$	-800	mA
Base Current	$I_B$	-160	mA
Collector Power Dissipation	$P_C$	500	mW
	$P_{C^*}$	1000	
Junction temperature	$T_j$	150	$^\circ\text{C}$
Storage temperature Range	$T_{stg}$	-55 to +150	$^\circ\text{C}$

\* Mounted on ceramic substrate ( $250\text{ mm}^2 \times 0.8\text{ t}$ )

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	$V_{CB0}$	$I_C = -100\text{ }\mu\text{A}$ , $I_E = 0$	-35			V
Collector- emitter breakdown voltage	$V_{CE0}$	$I_C = -10\text{ mA}$ , $I_B = 0$	-30			
Emitter - base breakdown voltage	$V_{EB0}$	$I_E = -100\text{ }\mu\text{A}$ , $I_C = 0$	-5			
Collector-base cut-off current	$I_{CB0}$	$V_{CB} = -35\text{ V}$ , $I_E = 0$			-100	nA
Emitter cut-off current	$I_{EB0}$	$V_{EB} = -5\text{ V}$ , $I_C = 0$			-100	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -500\text{ mA}$ , $I_B = -20\text{ mA}$			-0.7	V
Base - emitter saturation voltage	$V_{BE(sat)}$	$I_C = -500\text{ mA}$ , $I_B = -20\text{ mA}$			-1.2	
Base - emitter voltage	$V_{BE}$	$V_{CE} = -1\text{ V}$ , $I_C = -10\text{ mA}$	-0.5		-0.8	
DC current gain	$h_{FE(1)}$	$V_{CE} = -1\text{ V}$ , $I_C = -100\text{ mA}$	100		320	
	$h_{FE(2)}$	$V_{CE} = -1\text{ V}$ , $I_C = -700\text{ mA}$	35			
Output capacitance	$C_{ob}$	$V_{CE} = -10\text{ V}$ , $I_E = 0$ , $f = 1\text{ MHz}$		19		pF
Transition frequency	$f_T$	$V_{CE} = -5\text{ V}$ , $I_E = -10\text{ mA}$		120		MHz

#### ■ Classification of $h_{fe(1)}$

Type	2SA1204-O-HF	2SA1204-Y-HF
Range	100-200	160-320
Marking	RO <sub>F</sub>	RY <sub>F</sub>

# PNP Transistors

## 2SA1204-HF

### Typical Characteristics

