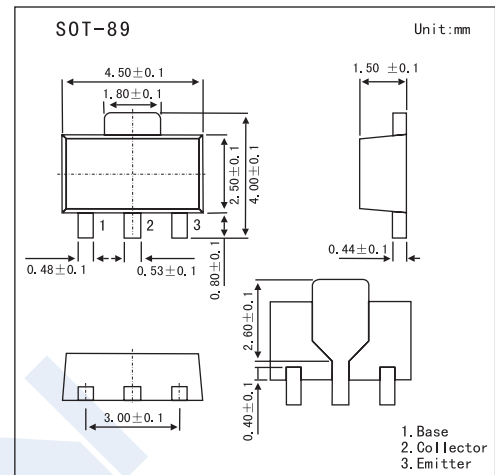


## Audio Power Applications

## 2SA1314



### ■ Features

- Low Saturation Voltage  
:  $V_{CE(sat)} = -0.5V$  (max) ( $I_C = -2A$ ,  $I_B = -50mA$ )
- Small Flat Package
- Complementary to 2SC2982

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

Parameter	Symbol	Rating	Unit
Collector-Base Voltage	$V_{CB0}$	-20	V
Collector-Emitter Voltage	$V_{CEO}$	-10	V
Emitter-Base Voltage	$V_{EBO}$	-6	V
Collector Current (DC)	$I_C$	-2	A
Collector Current (Pulsed) *1	$I_{CP}$	-4	A
Base Current	$I_B$	-2	A
Collector Power Dissipation	$P_C$	500	mW
	$P_C$ *2	1000	
Junction temperature	$T_j$	150	$^\circ C$
Storage temperature Range	$T_{stg}$	-55 to +150	$^\circ C$

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

\*2 Mounted on ceramic substrate (250 mm<sup>2</sup> x 0.8 t)

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

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector Cut-off Current	$I_{CBO}$	$V_{CB} = -20V$ , $I_E = 0$			-100	nA
Emitter Cut-off Current	$I_{EBO}$	$V_{EB} = -6V$ , $I_C = 0$			-100	nA
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C = -10mA$ , $I_B = 0$	-10			V
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E = -1mA$ , $I_C = 0$	-6			V
DC Current Gain	$h_{FE}$	$V_{CE} = -1V$ , $I_C = -0.5A$	140		600	
		$V_{CE} = -1V$ , $I_C = -4A$	60	120		
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = -2A$ , $I_B = -50mA$		-0.2	-0.5	V
Base-Emitter Voltage	$V_{BE}$	$V_{CE} = -1V$ , $I_C = -2A$		-0.83	-1.5	V
Transition Frequency	$f_T$	$V_{CE} = -1V$ , $I_C = -0.5A$		140		MHz
Collector Output Capacitance	$C_{ob}$	$V_{CB} = -10V$ , $I_E = 0$ , $f = 1MHz$		50		pF

# 2SA1314

## hFE Classification

Marking	T		
Rank	A	B	C
hFE	140 ~ 280	200 ~ 400	300 ~ 600

## Electrical Characteristics Curves

