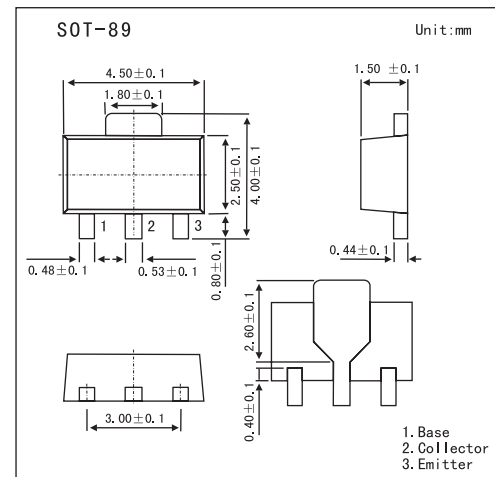


## Silicon PNP Epitaxial

## 2SA1734

## ■ Features

- Low saturation voltage:  $V_{CE(sat)} = -0.5 \text{ V (max)}$  ( $I_c = -700 \text{ mA}$ ).
- High speed switching time:  $t_{stg} = 0.2 \mu\text{s}$  (typ.).
- Small flat package.
- $P_C = 1.0$  to  $2.0 \text{ W}$  (mounted on ceramic substrate).

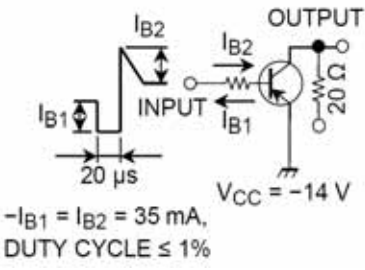
■ Absolute Maximum Ratings  $T_a = 25^\circ\text{C}$ 

Parameter	Symbol	Rating	Unit
Collector-base voltage	$V_{CB0}$	-40	V
Collector-emitter voltage	$V_{CE0}$	-30	V
Emitter-base voltage	$V_{EB0}$	-6	V
Collector current	$I_c$	-2	A
Base current	$I_B$	-1.2	A
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 ( $250 \text{ mm}^2 \times 0.8 \text{ t}$ )

## 2SA1734

## ■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit	
Collector cut-off current	I <sub>CBO</sub>	V <sub>CB</sub> = -40 V, I <sub>E</sub> = 0			-0.1	μA	
Emitter cut-off current	I <sub>EBO</sub>	V <sub>EB</sub> = -6 V, I <sub>C</sub> = 0			-0.1	μA	
Collector-emitter breakdown voltage	V <sub>(BR)CEO</sub>	I <sub>C</sub> = -10 mA, I <sub>B</sub> = 0	-50			V	
DC current gain	h <sub>FE</sub>	V <sub>CE</sub> = -2 V, I <sub>C</sub> = -100 mA	120		400		
		V <sub>CE</sub> = -2 V, I <sub>C</sub> = -1.0A	40				
Collector-emitter saturation voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> = -700 mA, I <sub>B</sub> = -35 mA			-0.5	V	
Base-emitter saturation voltage	V <sub>BE(sat)</sub>	I <sub>C</sub> = -700 mA, I <sub>B</sub> = -35 mA			-1.2	V	
Transition frequency	f <sub>T</sub>	V <sub>CE</sub> = -2 V, I <sub>C</sub> = -100 mA		100		MHz	
Collector output capacitance	C <sub>ob</sub>	V <sub>CB</sub> = -10 V, I <sub>E</sub> = 0, f = 1 MHz		16		pF	
Turn-on time	t <sub>on</sub>	 <p style="text-align: center;">-I<sub>B1</sub> = I<sub>B2</sub> = 35 mA, DUTY CYCLE ≤ 1%</p>		0.1		μs	
Storage time	t <sub>stg</sub>				0.2		μs
Fall time	t <sub>f</sub>				0.1		μs

## ■ Marking

Marking	LB
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