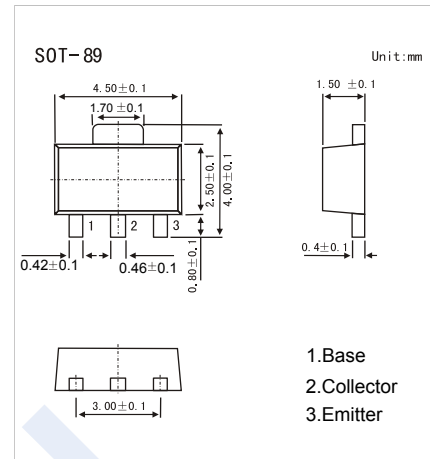


## PNP Transistors

## 2SA1735

## ■ Features

- Low saturation voltage
- High speed switching time
- Small flat package
- $P_C = 1.0$  to  $2.0$  W (mounted on a ceramic substrate)
- Complementary to 2SC4540

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

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	$V_{CB0}$	-60	V
Collector - Emitter Voltage	$V_{CE0}$	-50	
Emitter - Base Voltage	$V_{EB0}$	-6	
Collector Current - Continuous	$I_C$	-1	A
Base Current	$I_B$	-0.2	
Collector Power Dissipation (Note.1)	$P_C$	0.5 1	W
Junction Temperature	$T_J$	150	
Storage Temperature range	$T_{stg}$	-55 to 150	

Note.1: Mounted on ceramic board ( $250\text{mm}^2 \times 0.8\text{mm}$ )

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{CB0}$	$I_C = -1\text{ mA}$ , $I_E = 0$	-60			V
Collector-emitter breakdown voltage	$V_{CE0}$	$I_C = -10\text{ mA}$ , $I_B = 0$	-50			
Emitter-base breakdown voltage	$V_{EB0}$	$I_E = -1\text{ mA}$ , $I_C = 0$	-6			
Collector-base cut-off current	$I_{CBO}$	$V_{CB} = -60\text{ V}$ , $I_E = 0$			-0.1	$\mu\text{A}$
Emitter cut-off current	$I_{EBO}$	$V_{EB} = -6\text{ V}$ , $I_C = 0$			-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	$h_{FE(1)}$	$V_{CE} = -2\text{ V}$ , $I_C = -100\text{ mA}$	120		400	
	$h_{FE(2)}$	$V_{CE} = -2\text{ V}$ , $I_C = -700\text{ mA}$	40			
Turn-on Time	$t_{on}$	See specified Test Circuit		0.1		$\mu\text{s}$
Storage time	$t_{stg}$			0.25		
Fall time	$t_f$			0.1		
Collector output capacitance	$C_{ob}$	$V_{CB} = -10\text{ V}$ , $I_E = 0$ , $f = 1\text{ MHz}$		16		pF
Transition frequency	$f_T$	$V_{CE} = -2\text{ V}$ , $I_C = -100\text{ mA}$		100		MHz

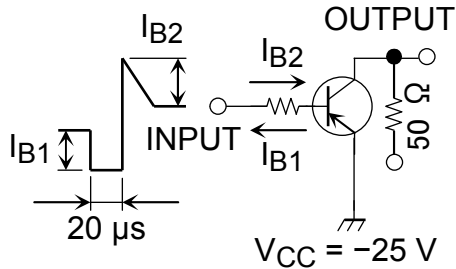
## ■ Marking

Marking	L°C
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### PNP Transistors

### 2SA1735

#### Switching Time Test Circuit



$I_{B1} = 25 \text{ mA}, I_{B2} = 25 \text{ mA}$   
 DUTY CYCLE  $\leq 1\%$

#### Typical Characteristics

