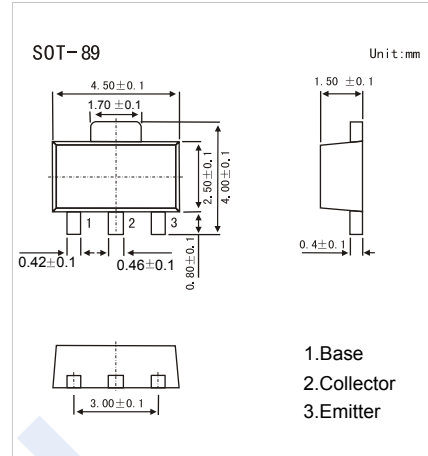


PNP Transistors

2SB1589

■ Features

- Low collector to emitter saturation voltage $V_{CE(sat)}$.
- Large collector power dissipation P_c .
- For low-frequency output amplification



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

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V_{CB0}	-10	V
Collector - Emitter Voltage	V_{CE0}	-10	
Emitter - Base Voltage	V_{EB0}	-7	
Collector Current - Continuous	I_c	-1.5	A
Collector Current - Pulse	I_{CP}	-2	
Collector Power Dissipation	P_c	1	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_{CB0}	$I_c = -100 \mu\text{A}$, $I_E = 0$	-10			V
Collector- emitter breakdown voltage	V_{CE0}	$I_c = -1 \text{ mA}$, $I_B = 0$	-10			
Emitter - base breakdown voltage	V_{EB0}	$I_E = -100 \mu\text{A}$, $I_c = 0$	-7			
Collector-base cut-off current	I_{CBO}	$V_{CB} = -7\text{V}$, $I_E = 0$			-1	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = -6\text{V}$, $I_c = 0$			-0.1	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_c = -1 \text{ A}$, $I_B = -25 \text{ mA}$		-0.24	-0.35	V
Base - emitter saturation voltage	$V_{BE(sat)}$	$I_c = -1 \text{ A}$, $I_B = -25 \text{ mA}$			-1.2	
DC current gain	h_{FE}	$V_{CE} = -1\text{V}$, $I_c = -400 \text{ mA}$	200		700	
Forward voltage	V_F	$I_F = -500\text{mA}$			-1.3	V
Collector output capacitance	C_{ob}	$V_{CB} = -10\text{V}$, $I_E = 0, f = 1\text{MHz}$		65		μF
Transition frequency	f_T	$V_{CE} = -6\text{V}$, $I_E = 50 \text{ mA}, f = 200\text{MHz}$		190		MHz

■ Marking

Marking	1U
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Typical Characteristics

