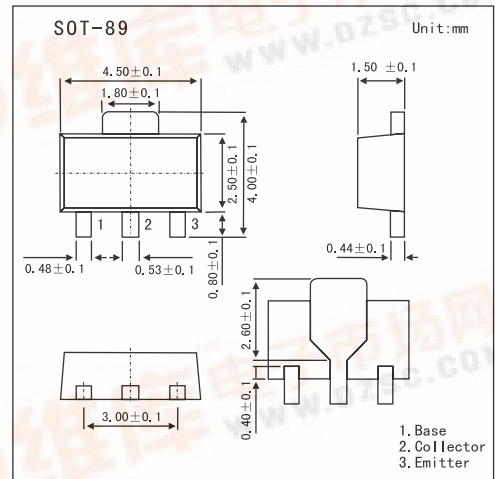


SMD Type Transistors

Silicon PNP Epitaxial Planar Type
2SB1589

Features

- Low collector to emitter saturation voltage $V_{CE(sat)}$.
- Large collector power dissipation PC.
- Mini Power type package, allowing downsizing of the equipment and automatic insertion through the tape packing and the magazine packing.



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	V
Emitter-base voltage	V_{EB0}	-7	V
Peak collector current	I_{CP}	-2	A
Collector current	I_C	-1.5	A
Collector power dissipation	P_C	1	W
Junction temperature	T_j	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 to +150	$^\circ\text{C}$

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

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector cutoff current	I_{CBO}	$V_{CB} = -7\text{ V}, I_E = 0$			-1	μA
Collector-base voltage	V_{CB0}	$I_C = -10\ \mu\text{A}, I_E = 0$	-10			V
Collector-emitter voltage	V_{CE0}	$I_C = -1\ \text{mA}, I_B = 0$	-10			V
Emitter-base voltage	V_{EB0}	$I_E = -10\ \mu\text{A}, I_C = 0$	-7			V
Forward current transfer ratio	h_{FE}	$V_{CE} = -1\ \text{V}, I_C = -400\ \text{mA}$	200		700	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -1\ \text{A}, I_B = -25\ \text{mA}$		-0.24	-0.35	V
Transition frequency	f_T	$V_{CB} = -6\ \text{V}, I_E = 50\ \text{mA}, f = 200\ \text{MHz}$		190		MHz
Collector output capacitance	C_{ob}	$V_{CB} = -10\ \text{V}, I_E = 0, f = 1\ \text{MHz}$		6.5		pF
Forward voltage	V_F	$I_F = -500\ \text{mA}$			1.3	V

Marking

Marking	1U
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