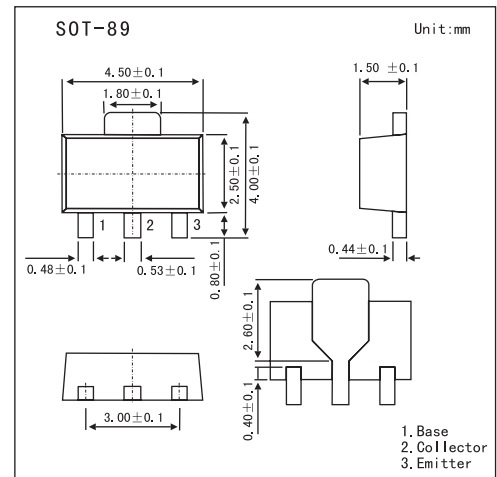


Silicon NPN Epitaxial Planar Type

2SD2359

■ Features

- Low collector-emitter saturation voltage $V_{CE(sat)}$.
- 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}	20	V
Collector-emitter voltage	V_{CEO}	20	V
Emitter-base voltage	V_{EBO}	5	V
Collector current	I_C	1.2	A
Peak collector current	I_{CP}	1	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-base cutoff current	I_{CB0}	$V_{CB} = 14\text{ V}, I_E = 0$			1	μA
Collector-base voltage	V_{CB0}	$I_C = 10\ \mu\text{A}, I_E = 0$	20			V
Collector-emitter voltage	V_{CEO}	$I_C = 1\ \text{mA}, I_B = 0$	20			V
Emitter-base voltage	V_{EBO}	$I_E = 10\ \mu\text{A}, I_C = 0$	5			V
Forward current transfer ratio	h_{FE}	$V_{CE} = 2\ \text{V}, I_C = 100\ \text{mA}$	200		800	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 500\ \text{mA}, I_B = 10\ \text{mA}$		0.11	0.2	V
Transition frequency	f_T	$V_{CB} = 6\ \text{V}, I_E = -50\ \text{mA}, f = 200\ \text{MHz}$		100		MHz
Collector output capacitance	C_{ob}	$V_{CB} = 6\ \text{V}, I_E = 0, f = 1\ \text{MHz}$		23		pF

■ Marking

Marking	10
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