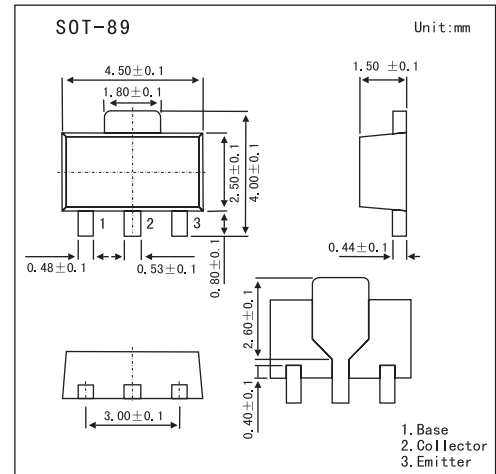


Silicon NPN Epitaxial Planar Type

2SD2441

■ Features

- 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_{CEO}	10	V
Emitter-base voltage	V_{EBO}	7	V
Collector current	I_C	2	A
Peak collector current	I_{CP}	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-base 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_{CEO}	$I_C = 1\ \text{mA}, I_B = 0$	10			V
Emitter-base voltage	V_{EBO}	$I_E = 10\ \mu\text{A}, I_C = 0$	7			V
Forward current transfer ratio	h_{FE}	$V_{CE} = 1\ \text{V}, I_C = 400\ \text{mA}$	200		700	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 1\ \text{A}, I_B = 25\ \text{mA}$		0.17	0.25	V
Transition frequency	f_T	$V_{CB} = 60\ \text{V}, I_E = -50\ \text{mA}, f = 200\ \text{MHz}$		190		MHz
Collector output capacitance	C_{ob}	$V_{CB} = 10\ \text{V}, I_E = 0, f = 1\ \text{MHz}$		50		pF
Forward voltage	V_{F1}	$I_F = 500\ \text{mA}$			1.3	V

■ Marking

Marking	1V
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