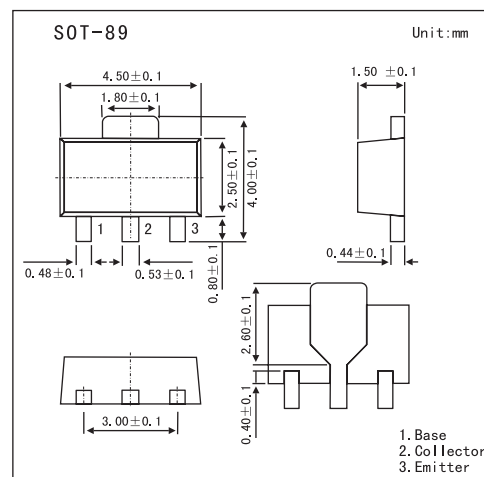


Silicon NPN epitaxial planer type

2SD2459

■ Features

- High collector to emitter voltage V_{CE0} .
- Low collector to emitter saturation voltage $V_{CE(sat)}$.

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

Parameter	Symbol	Rating	Unit
Collector to base voltage	V_{CBO}	150	V
Collector to emitter voltage	V_{CEO}	150	V
Emitter to base voltage	V_{EBO}	5	V
Peak collector current	I_{CP}	1.5	A
Collector current	I_C	1	A
Collector power dissipation	P_C^*	1	W
Junction temperature	T_j	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 to +150	$^\circ\text{C}$

* Printed circuit board: Copper foil area of 1cm^2 or more, and the board thickness of 1.7mm for the collector portion

2SD2459

■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector cutoff current	ICBO	V _{CB} = 75V, I _E = 0			0.1	μA
Collector to base voltage	V _{CB0}	I _C = 10μA, I _E = 0	150			V
Collector to emitter voltage	V _{CE0}	I _C = 1mA, I _B = 0	150			V
Emitter to base voltage	V _{EB0}	I _E = 10μA, I _C = 0	5			V
Forward current transfer ratio	h _{FE}	V _{CE} = 2V, I _C = 100mA	120		340	
		V _{CE} = 2V, I _C = 500mA	40			
Collector to emitter saturation voltage	V _{CE(sat)}	I _C = 500mA, I _B = 25mA*		0.11	0.3	V
Base to emitter saturation voltage	V _{BE(sat)}	I _C = 500mA, I _B = 25mA*		0.8	1.2	V
Transition frequency	f _T	V _{CB} = 10V, I _E = -50mA, f = 200MHz		90		MHz
Collector output capacitance	C _{ob}	V _{CB} = 10V, I _E = 0, f = 1MHz		12	20	pF

* Pulse measurement

■ hFE Classification

Marking	2ER	2ES
Rank	R	S
hFE	120~240	170~340