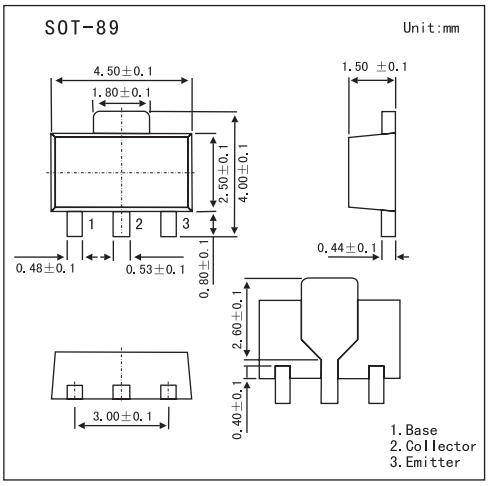
TY Semicondutor®

Product specification

2SD2459



■ Features

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

■ Absolute Maximum Ratings Ta = 25℃

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	℃
Storage temperature	T_{stg}	-55 to +150	℃

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

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■ Electrical Characteristics Ta = 25℃

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Collector cutoff current	I_{CBO}	V_{CB} = 75V, I_E = 0			0.1	μA
Collector to base voltage	V_{CBO}	I_C = 10μA, I_E = 0	150			V
Collector to emitter voltage	V_{CEO}	I_C = 1mA, I_B = 0	150			V
Emitter to base voltage	V_{EBO}	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

■ h_{FE} Classification

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