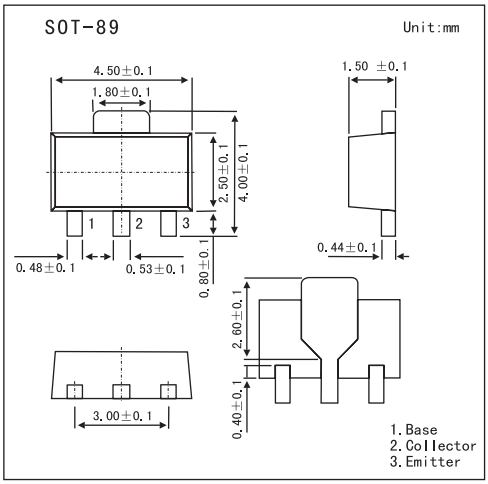
Silicon NPN Epitaxial Planar Type

2SD2457



■ Features

- High collector-emitter voltage (Base open) V_{CEO}.
- Low collector power dissipation P_C.
- Mini Power type package, allowing downsizing of the equipment and automatic insertion through the tape packing and the magazine packing.

■ Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	50	V
Collector-emitter voltage	V_{CEO}	40	V
Emitter-base voltage	V_{EBO}	5	V
Collector current	I_C	3	A
Peak collector current	I_{CP}	1.5	A
Collector power dissipation	P_C	1	W
Junction temperature	T_j	150	℃
Storage temperature	T_{stg}	-55 to +150	℃

■ Electrical Characteristics Ta = 25℃

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Collector-base cutoff current	I_{CBO}	V_{CB} = 20 V, I_E = 0			1	μA
Collector-emitter cutoff current	I_{CEO}	V_{CE} = 10 V, I_B = 0			100	μA
Emitter-base cutoff current	I_{EBO}	V_{EB} = 5 V, I_C = 0			10	μA
Collector-base voltage	V_{CBO}	I_C = 1 mA, I_E = 0	50			V
Collector-emitter voltage	V_{CEO}	I_C = 2 mA, I_B = 0	40			V
Forward current transfer ratio	h_{FE}	V_{CE} = 5 V, I_C = 1 A	80	120	220	
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C = 1.5 A, I_B = 0.15 A			1	V
Base-emitter saturation voltage	$V_{BE(sat)}$	I_C = 2 A, I_B = 0.2 A			1.5	V
Transition frequency	f_T	V_{CB} = 5 V, I_E = -0.5 A, f = 200 MHz		150		MHz
Collector output capacitance	Cob	V_{CB} = 20 V, I_E = 0, f = 1 MHz		45		pF

■ h_{FE} Classification

Marking	1Y	
Rank	Q	R
h_{FE}	80～160	120～220