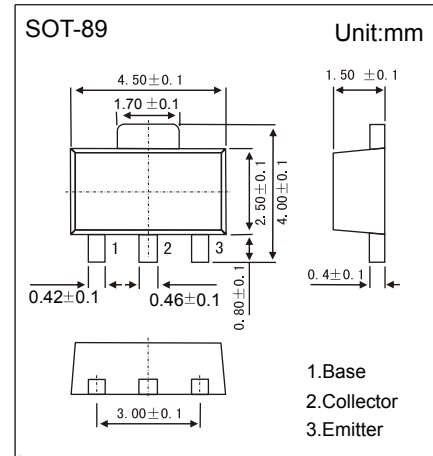


NPN Transistors

2SD2459

■ Features

- Collector Current Capability $I_C=1A$
- Collector Emitter Voltage $V_{CEO}=150V$

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

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V_{CBO}	150	V
Collector - Emitter Voltage	V_{CEO}	150	
Emitter - Base Voltage	V_{EBO}	5	
Collector Current - Continuous	I_C	1	A
Collector Current - Pulse	I_{CP}	1.5	
Collector Power Dissipation	P_C	1	W
Junction Temperature	T_J	150	$^\circ C$
Storage Temperature Range	T_{stg}	-55 to 150	

■ Electrical Characteristics $T_a = 25^\circ C$

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	V_{CBO}	$I_C = 100 \mu A, I_E = 0$	150			V
Collector- emitter breakdown voltage	V_{CEO}	$I_C = 1 mA, I_B = 0$	150			
Emitter - base breakdown voltage	V_{EBO}	$I_E = 100 \mu A, I_C = 0$	5			
Collector-base cut-off current	I_{CBO}	$V_{CB} = 150 V, I_E = 0$			0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = 5 V, I_C = 0$			0.1	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 500 mA, I_B = 25 mA$			0.3	V
Base - emitter saturation voltage	$V_{BE(sat)}$	$I_C = 500 mA, I_B = 25 mA$			1.2	
DC current gain	h_{FE}	$V_{CE} = 2 V, I_C = 100 mA$	120		340	
		$V_{CE} = 2 V, I_C = 500 mA$	40			
Collector output capacitance	C_{ob}	$V_{CB} = 10 V, I_E = 0, f = 1 MHz$			20	pF
Transition frequency	f_T	$V_{CB} = 10 V, I_E = -50 mA, f = 200 MHz$		90		MHz

■ Classification of $h_{FE}(1)$

Type	2SD2459-R	2SD2459-S
Range	120-240	170-340
Marking	2ER	2ES

NPN Transistors

2SD2459

■ Typical Characteristics

