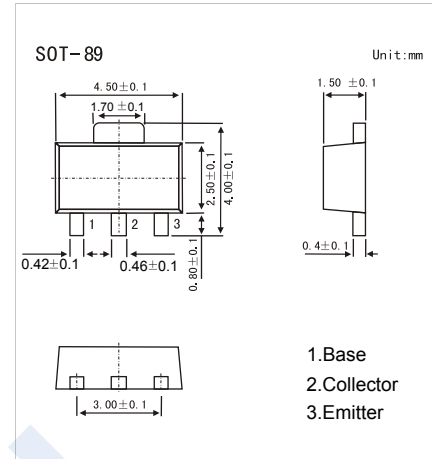


## NPN Transistors

### 2SD2357

#### ■ Features

- Low collector to emitter saturation voltage  $V_{CE(sat)}$ .
- Large collector power dissipation  $P_C$ .
- Complementary to 2SB1537



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

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	$V_{CB0}$	10	V
Collector - Emitter Voltage	$V_{CE0}$	10	
Emitter - Base Voltage	$V_{EB0}$	5	
Collector Current - Continuous	$I_C$	1	A
Collector Current - Pulse	$I_{CP}$	1.2	
Collector Power Dissipation	$P_C$	1	W
Junction Temperature	$T_J$	150	$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	-55 to 150	

#### ■ Electrical Characteristics $T_a = 25^\circ\text{C}$

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	$V_{CB0}$	$I_C = 100\mu\text{A}$ , $I_E = 0$	10			V
Collector- emitter breakdown voltage	$V_{CE0}$	$I_C = 1\text{mA}$ , $I_B = 0$	10			
Emitter - base breakdown voltage	$V_{EB0}$	$I_E = 100\mu\text{A}$ , $I_C = 0$	5			
Collector-base cut-off current	$I_{CBO}$	$V_{CB} = 7\text{V}$ , $I_E = 0$			1	$\mu\text{A}$
Emitter cut-off current	$I_{EBO}$	$V_{EB} = 5\text{V}$ , $I_C = 0$			0.1	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 500\text{mA}$ , $I_B = 5\text{mA}$			0.15	V
Base - emitter saturation voltage	$V_{BE(sat)}$	$I_C = 500\text{mA}$ , $I_B = 5\text{mA}$			1.2	
DC current gain	$h_{FE}$	$V_{CE} = 2\text{V}$ , $I_C = 100\text{mA}$	200		800	
Collector output capacitance	$C_{ob}$	$V_{CB} = 5\text{V}$ , $I_E = 0$ , $f = 1\text{MHz}$		30		pF
Transition frequency	$f_T$	$V_{CE} = 5\text{V}$ , $I_E = -50\text{mA}$ , $f = 200\text{MHz}$		120		MHz

#### ■ Marking

Marking	1M
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# NPN Transistors

## 2SD2357

### Typical Characteristics

