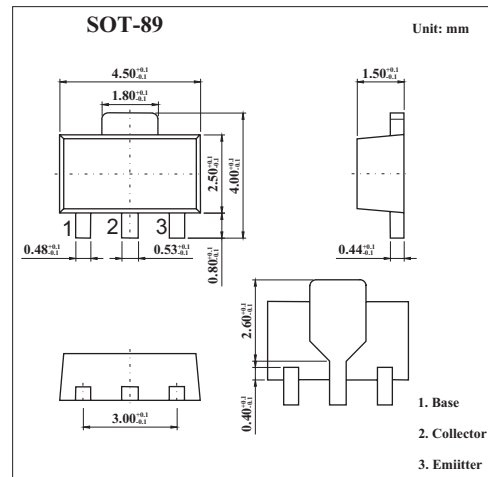


## High Gain Amplifier Transistor

## 2SD2153

## ■ Features

- Low saturation voltage.
- Excellent DC current gain characteristics.

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

Parameter	Symbol	Rating	Unit
Collector-base voltage	$V_{CBO}$	30	V
Collector-emitter voltage	$V_{CEO}$	25	V
Emitter-base voltage	$V_{EBO}$	6	V
Collector current	$I_C$	2	A
Collector power dissipation	$P_C$	0.5	W
Junction temperature	$T_j$	150	$^\circ\text{C}$
Storage temperature	$T_{stg}$	-55 to +150	$^\circ\text{C}$

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

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$BV_{CBO}$	$I_C=50\mu\text{A}$	30			V
Collector-emitter breakdown voltage	$BV_{CEO}$	$I_C=1\text{mA}$	25			V
Emitter-base breakdown voltage	$BV_{EBO}$	$I_E=50\mu\text{A}$	6			V
Collector cutoff current	$I_{CBO}$	$V_{CB}=20\text{V}$			0.5	$\mu\text{A}$
Emitter cutoff current	$I_{EBO}$	$V_{EB}=5\text{V}$			0.5	$\mu\text{A}$
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=1\text{A}, I_B=20\text{mA}$		0.12	0.5	V
DC current transfer ratio	$h_{FE}$	$V_{CE}=6\text{V}, I_C=0.5\text{A}$	560		2700	
Output capacitance	$f_t$	$V_{CE}=10\text{V}, I_E=-10\text{mA}, f=100\text{MHz}$		110		MHz
Transition frequency	$C_{ob}$	$V_{CB}=10\text{V}, I_E=0\text{A}, f=1\text{MHz}$		22		pF

■  $h_{FE}$  Classification

Marking	DN		
	U	V	W
$h_{FE}$	560~1200	820~1800	1200~2700