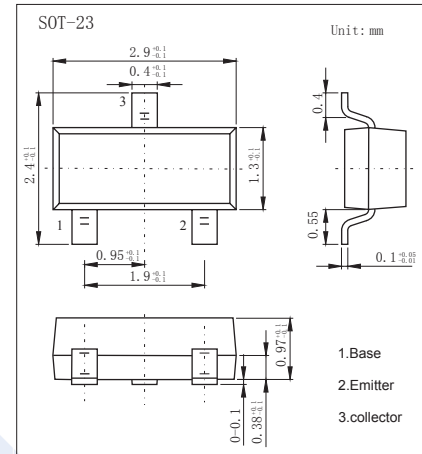


## NPN Transistors

## 2SD1101

## ■ Features

- Collector Current Capability  $I_c=0.7A$
- Collector Emitter Voltage  $V_{CE0}=20V$
- Complement to 2SB831

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

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	$V_{CBO}$	25	V
Collector - Emitter Voltage	$V_{CEO}$	20	
Emitter - Base Voltage	$V_{EBO}$	5	
Collector Current - Continuous	$I_c$	0.7	A
Collector Current - Pulse	$I_{cP}$	1	
Collector Power Dissipation	$P_c$	150	mW
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	$V_{CBO}$	$I_c = 100 \mu A, I_E = 0$	25			V
Collector- emitter breakdown voltage	$V_{CEO}$	$I_c = 1 mA, I_B = 0$	20			
Emitter - base breakdown voltage	$V_{EBO}$	$I_E = 100 \mu A, I_c = 0$	5			
Collector-base cut-off current	$I_{CBO}$	$V_{CB} = 20 V, I_E = 0$			0.1	$\mu A$
Emitter-base cut-off current	$I_{EBO}$	$V_{EB} = 5 V, I_c = 0$			0.1	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_c = 500 mA, I_B = 50 mA$			0.5	V
Base - emitter saturation voltage	$V_{BE(sat)}$	$I_c = 500 mA, I_B = 50 mA$			1.2	
Base to emitter voltage	$V_{BE}$	$V_{CE} = 1 V, I_c = 150 mA$			1	
DC current gain	$h_{FE}$	$V_{CE} = 1 V, I_c = 150 mA$	85		240	

■ Classification of  $h_{fe}$ 

Type	2SD1101-B	2SD1101-C
Range	85-170	120-240
Marking	AB	AC