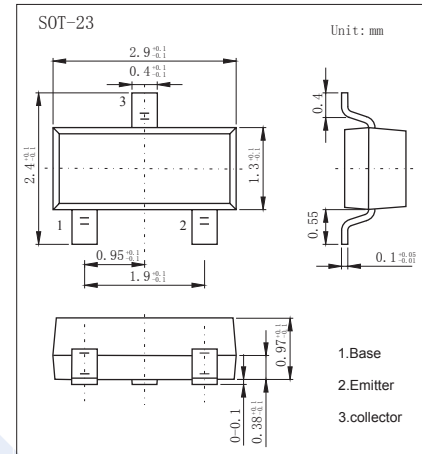


NPN Transistors

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	μA
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