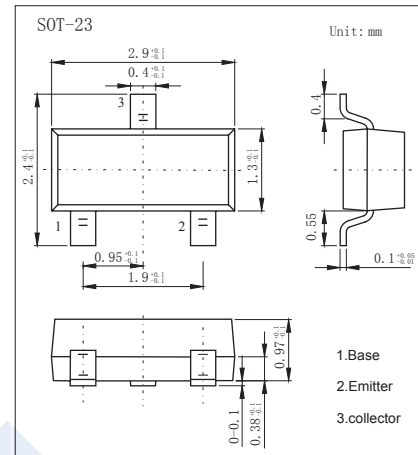


NPN Transistors

2SD1306

■ Features

- Collector Current Capability $I_c=0.7A$
- Collector Emitter Voltage $V_{CEO}=15V$



■ Absolute Maximum Ratings Ta = 25°C

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V _{CBO}	30	V
Collector - Emitter Voltage	V _{CEO}	15	
Emitter - Base Voltage	V _{EBO}	5	
Collector Current - Continuous	I _C	700	mA
Collector Power Dissipation	P _C	150	mW
Junction Temperature	T _J	150	°C
Storage Temperature Range	T _{stg}	-55 to 150	

■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	V_{CB0}	$I_C = 100 \mu A, I_E = 0$	30			V
Collector- emitter breakdown voltage	V_{CE0}	$I_C = 1 mA, I_B = 0$	15			
Emitter - base breakdown voltage	V_{EB0}	$I_E = 100 \mu A, I_C = 0$	5			
Collector-base cut-off current	I_{CB0}	$V_{CB} = 20 V, I_E = 0$			1	uA
Emitter-base cut-off current	I_{EB0}	$V_{EB} = 5 V, I_C = 0$			0.1	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 500mA, I_B = 50mA$			0.5	V
Base - emitter saturation voltage	$V_{BE(sat)}$	$I_C = 500mA, I_B = 50mA$			1.2	
Base - emitter voltage	V_{BE}	$V_{CE} = 1V, I_C = 150mA$			1	
DC current gain	h_{FE}	$V_{CE} = 1V, I_C = 150mA$	250		800	
Transition frequency	f_T	$V_{CE} = 1V, I_C = 150mA$		250		MHz

■ Classification of hfe

Type	2SD1306-D	2SD1306-E
Range	250-500	400-800
Marking	ND	NE