

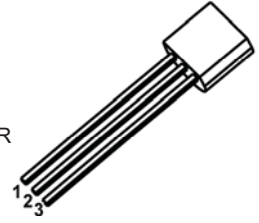
## 2SB1068 TRANSISTOR (PNP)

### FEATURES

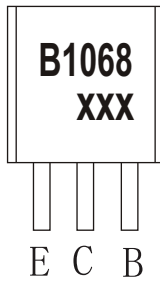
- Low Collector Saturation Voltage
- High DC Current Gain
- High Collector Power Dissipation
- Complementary To The 2SD1513 NPN Transistor

### TO - 92

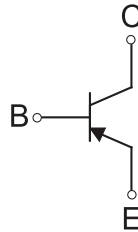
1. EMITTER
2. COLLECTOR
3. BASE



### MARKING



### Equivalent Circuit



### ORDERING INFORMATION

Part Number	Package	Packing Method	Pack Quantity
2SB1068	TO-92	Bulk	1000pcs/Bag

### MAXIMUM RATINGS (T<sub>a</sub>=25°C unless otherwise noted)

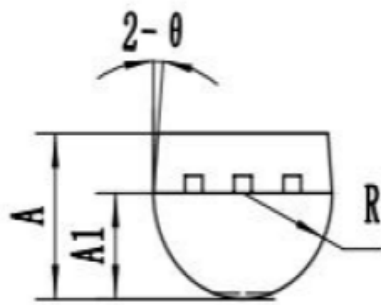
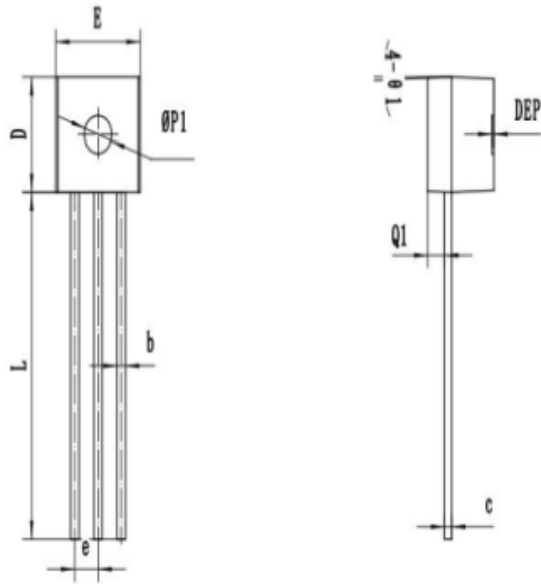
Symbol	Parameter	Value	Unit
V <sub>CB0</sub>	Collector-Base Voltage	-20	V
V <sub>CE0</sub>	Collector-Emitter Voltage	-16	V
V <sub>EB0</sub>	Emitter-Base Voltage	-6	V
I <sub>c</sub>	Collector Current -Continuous	-2	A
P <sub>D</sub>	Collector Power Dissipation	625	mW
R <sub>KJA</sub>	Thermal Resistance from Junction to Ambient	200	°C /W
T <sub>J</sub> , T <sub>stg</sub>	Operation Junction and Storage Temperature Range	-55~+150	°C

$T_a=25\text{ }^\circ\text{C}$  unless otherwise specified

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=-0.1\text{mA}, I_E=0$	-20			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=-1\text{mA}, I_B=0$	-16			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=-0.1\text{mA}, I_C=0$	-6			V
Collector cut-off current	$I_{CBO}$	$V_{CB}=-16\text{V}, I_E=0$			-0.1	$\mu\text{A}$
Emitter cut-off current	$I_{EBO}$	$V_{EB}=-6\text{V}, I_C=0$			-0.1	$\mu\text{A}$
DC current gain	$h_{FE(1)}$	$V_{CE}=-2\text{V}, I_C=-0.1\text{A}$	135		650	
	$h_{FE(2)}$	$V_{CE}=-2\text{V}, I_C=-1.5\text{A}$	100			
Collector-emitter saturation voltage	$V_{CE(sat)1}$	$I_C=-1\text{A}, I_B=-10\text{mA}$			-0.4	V
	$V_{CE(sat)2}$	$I_C=-1.5\text{A}, I_B=-20\text{mA}$			-0.5	V
	$V_{CE(sat)3}$	$I_C=-1.5\text{A}, I_B=-75\text{mA}$			-0.5	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C=-1.5\text{A}, I_B=-75\text{mA}$			-1.2	V
Base-emitter voltage	$V_{BE}$	$V_{CE}=-6\text{V}, I_C=-5\text{mA}$	-0.55		-0.65	V
Collector output capacitance	$C_{ob}$	$V_{CB}=-10\text{V}, I_E=0, f=1\text{MHz}$		60		pF
Transition frequency	$f_T$	$V_{CE}=-10\text{V}, I_C=-50\text{mA}$	100			MHz

#### CLASSIFICATION OF $h_{FE(1)}$

RANK	L	K	U
RANGE	135-270	200-400	300-650



SYMBOL	MM		
	MIN	NOM	MAX
*A	3.00	3.25	3.50
A1	2.20	2.30	2.40
*b	0.40	0.45	0.50
*c	0.25	0.30	0.35
*D	4.50	4.60	4.70
*E	4.50	4.60	4.70
*e	1.22	1.27	1.32
*L	14.00	14.30	14.60
R	2.20	2.30	2.40
Q1	0.85	0.90	0.95
θ	3°	5°	7°
Ø1	1°	3°	5°
ØP1	1.40	1.50	1.60
DEP	0.05	0.10	0.20
带*为检验尺寸			