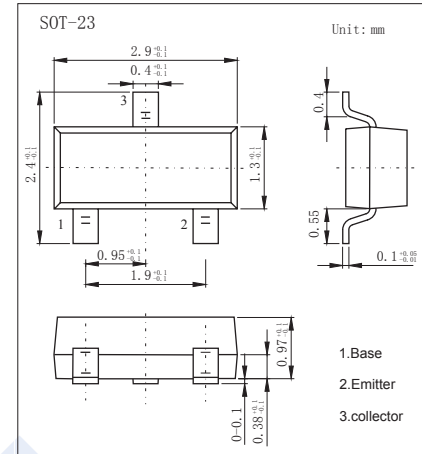
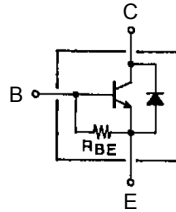


## NPN Transistors

## 2SD2324

## ■ Features

- Collector Current Capability  $I_c=800\text{mA}$
- Collector Emitter Voltage  $V_{CE0}=15\text{V}$

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

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	$V_{CB0}$	20	V
Collector - Emitter Voltage	$V_{CE0}$	15	
Emitter - Base Voltage	$V_{EB0}$	5	
Collector Current - Continuous	$I_c$	800	mA
Collector Current - Pulse	$I_{CP}$	2	A
Collector Power Dissipation	$P_c$	200	mW
Junction Temperature	$T_J$	150	$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	-55 to 150	

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	$V_{CB0}$	$I_c = 100 \mu\text{A}, I_E = 0$	20			V
Collector- emitter breakdown voltage	$V_{CE0}$	$I_c = 1 \text{mA}, I_B = 0$	15			
Emitter - base breakdown voltage	$V_{EB0}$	$I_E = 100 \mu\text{A}, I_c = 0$	5			
Collector-base cut-off current	$I_{CB0}$	$V_{CB} = 15 \text{V}, I_E = 0$			1	$\mu\text{A}$
Emitter-base cut-off current	$I_{EB0}$	$V_{EB} = 5 \text{V}, I_c = 0$			0.1	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_c = 500 \text{mA}, I_B = 10 \text{mA}$			0.3	V
Base - emitter saturation voltage	$V_{BE(sat)}$	$I_c = 500 \text{mA}, I_B = 10 \text{mA}$			1.2	
DC current gain	$h_{FE}$	$V_{CE} = 2 \text{V}, I_c = 500 \text{mA}$	70			
Diode forward voltage	$V_F$	$I_F = 0.5 \text{A}$			1.5	V
Collector-emitter resistance	$R_{BE}$			1		K $\Omega$
Collector output capacitance	$C_{ob}$	$V_{CB} = 10 \text{V}, f = 1 \text{MHz}$		15		pF
Transition frequency	$f_T$	$V_{CE} = 2 \text{V}, I_c = 0.5 \text{A}$		150		MHz

## ■ Marking

Marking	BN
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### NPN Transistors

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■ Typical Characteristics

