

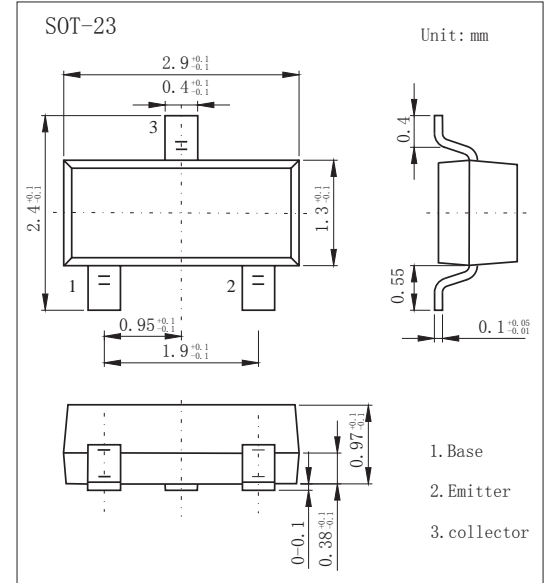
## SOT-23 Plastic-Encapsulate Transistors

### Features

- Collector Current Capability  $I_c=0.5A$
- Collector Emitter Voltage  $V_{CE0}=45V$
- Low voltage
- NPN Transistors

### MECHANICAL DATA

- Case style:SOT-23molded plastic
- Mounting position:any



## MAXIMUM RATINGS AND CHARACTERISTICS

@ 25°C Ambient Temperature (unless otherwise noted)

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	$V_{CB0}$	50	V
Collector - Emitter Voltage	$V_{CE0}$	45	
Emitter - Base Voltage	$V_{EB0}$	5	
Collector Current - Continuous	$I_c$	500	mA
Collector Power Dissipation	$P_c$	225	mW
Junction Temperature	$T_J$	150	°C
Storage Temperature Range	$T_{stg}$	-55 to 150	

### PACKAGE INFORMATION

Device	Package	Shipping
BCX19	SOT-23	3000/Tape&Reel

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	$V_{CB0}$	$I_c= 100 \mu A, I_E= 0$	50			V
Collector- emitter breakdown voltage	$V_{CE0}$	$I_c= 1 mA, I_B= 0$	45			
Emitter - base breakdown voltage	$V_{EB0}$	$I_E= 100 \mu A, I_c= 0$	5			
Collector-base cut-off current	$I_{CB0}$	$V_{CB}= 50 V, I_E= 0$			0.1	uA
Emitter cut-off current	$I_{EB0}$	$V_{EB}= 5V, I_c=0$			0.1	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_c=500 mA, I_B=50mA$			0.62	V
Base - emitter saturation voltage	$V_{BE(sat)}$	$I_c= 500 mA, I_B= 50mA$			1.2	
Base-emitter voltage	$V_{BE(on)}$	$V_{CE}= 1V, I_c= 500mA$			1.2	
DC current gain	$h_{FE(1)}$	$V_{CE}= 1V, I_c= 100mA$	100		600	
	$h_{FE(2)}$	$V_{CE}= 1V, I_c= 300mA$	70			
	$h_{FE(3)}$	$V_{CE}= 1V, I_c= 500mA$	40			
Collector capacitance	$C_c$	$V_{CB}= 10V, I_E=I_c=0, f=1MHz$		5		pF
Transition frequency	$f_T$	$V_{CE}= 5V, I_c= 10mA, f=100MHz$	100			MHz

### Marking

Marking	U1
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# RATINGS AND CHARACTERISTIC CURVES

## Typical Characteristics

