

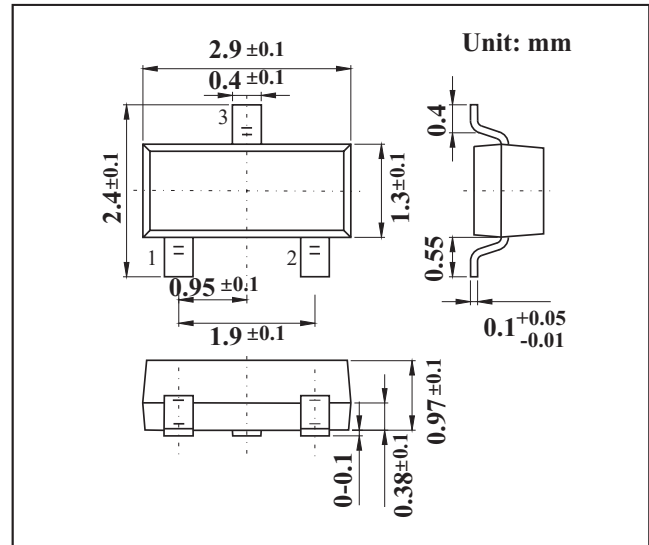
SOT-23 Plastic-Encapsulate Transistors

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_{CBO}	50	V
Collector - Emitter Voltage	V_{CEO}	45	
Emitter - Base Voltage	V_{EBO}	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_{CBO}	$I_C=100\mu A, I_E=0$	50			V
Collector- emitter breakdown voltage	V_{CEO}	$I_C=1mA, I_B=0$	45			
Emitter - base breakdown voltage	V_{EBO}	$I_E=100\mu A, I_C=0$	5			
Collector-base cut-off current	I_{CBO}	$V_{CB}=50V, I_E=0$			0.1	uA
Emitter cut-off current	I_{EBO}	$V_{EB}=5V, I_C=0$			0.1	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=500mA, I_B=50mA$			0.62	V
Base - emitter saturation voltage	$V_{BE(sat)}$	$I_C=500mA, I_B=50mA$			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

