

Silicon Epitaxial Planar Transistor

BCX19

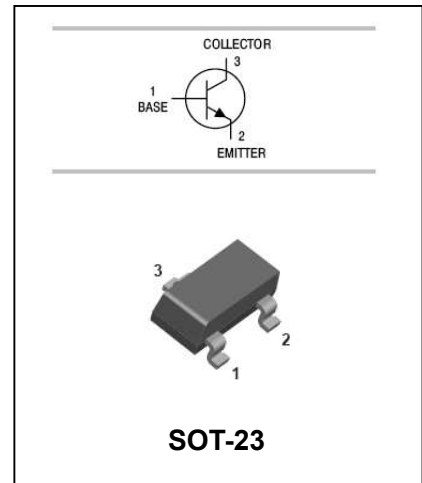
FEATURES

- High current(500mA).
- Low voltage(45V).



APPLICATIONS

- General purpose amplifiers.
- Saturated switching and driver applications.
- Complement:BCX17.



ORDERING INFORMATION

Type No.	Marking	Package Code
BCX19	U1	SOT-23

MAXIMUM RATING @ Ta=25°C unless otherwise specified

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	50	V
V_{CEO}	Collector-Emitter Voltage	45	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current -Continuous	500	mA
I_{CM}	Collector Current -Peak	1	A
P_{tot}	Total Power Dissipation	250	mW
$R_{\theta JA}$	Thermal Resistance,Junction voltage	417	°C/W
T_j, T_{stg}	Junction and Storage Temperature	-65 to +150	°C

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ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=100\mu A, I_E=0$	50			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=10mA, I_B=0$	45			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=10\mu A, I_C=0$	5			V
Collector cut-off current	I_{CBO}	$V_{CB}=20V, I_E=0$			0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=5V, I_C=0$			0.1	μA
DC current gain	h_{FE}	$V_{CE}=1V, I_C=100mA$ $V_{CE}=1V, I_C=300mA$ $V_{CE}=1V, I_C=500mA$	100 70 40		600	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=500mA, I_B=50mA$			0.62	V
Base-emitter on voltage	$V_{BE(on)}$	$I_C=500mA, V_{CE}=1V$			1.2	V
Collector Capacitance	C_C	$I_E=I_e=0, V_{CB}=10V$ $f=1MHz$		5		pF
Transition frequency	f_T	$V_{CE}=5V, I_C=10mA$ $f=100MHz$	100			MHz

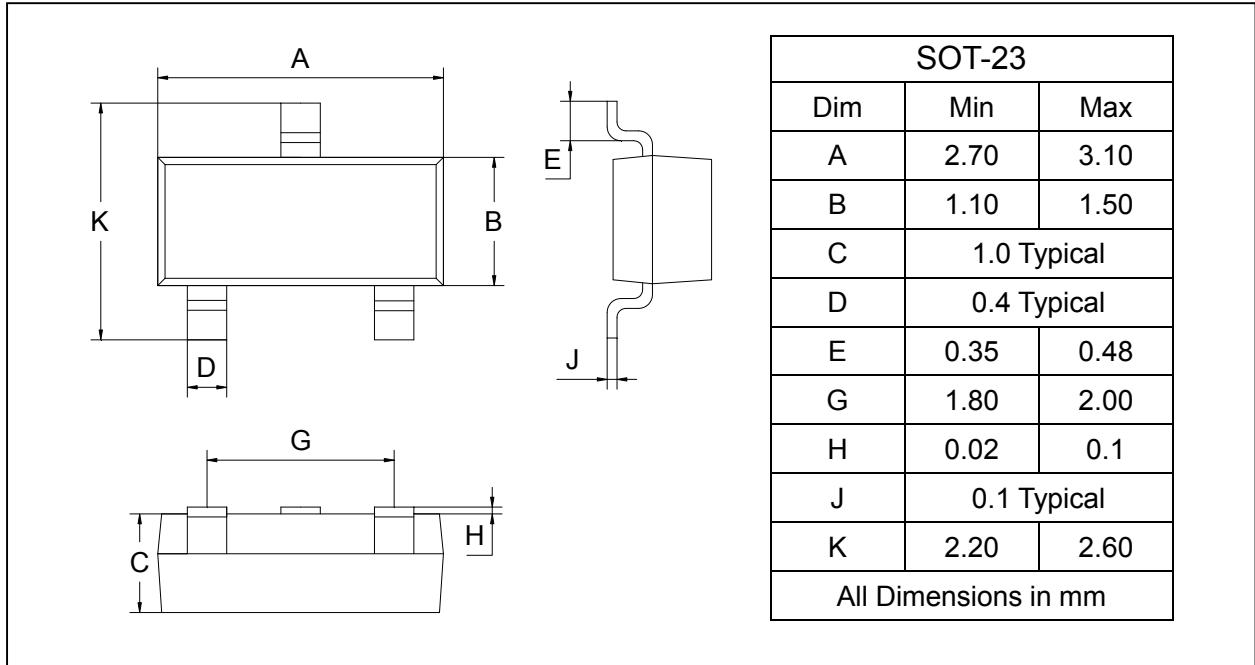
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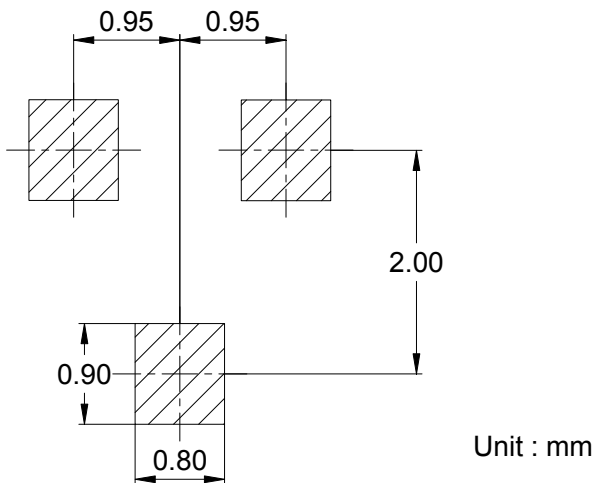
PACKAGE OUTLINE

Plastic surface mounted package

SOT-23



SOLDERING FOOTPRINT



PACKAGE INFORMATION

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