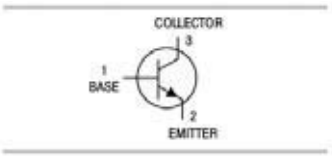
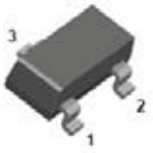
Silicon Epitaxial Planar Transistor: BCX19

Features:
- High current (500mA)
- Low voltage (45V)

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





SOT-23

Ordering Information

Type No.	Marking:	Package Code:
BCX19	U1	SOT-23

Maximum Ratings & Characteristics: Tamb=25°C unless otherwise specified

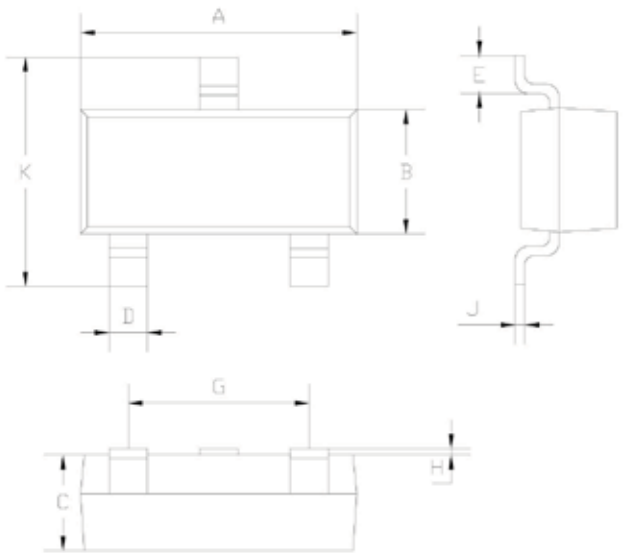
Parameter:	Symbol:	Value:	Unit:
Collector - Base Voltage	V_{CBO}	50	V
Collector - Emitter Voltage	V_{CEO}	45	V
Emitter - Base Voltage	V_{ebo}	5	V
Collector Current - Continuous	I_C	500	mA
Collector Current - Peak	I_{CM}	1	A
Total Power Dissipation	P_{TOT}	250	mW
Thermal Resisitance, Junction to Ambient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

Electrical Characteristics: Tamb=25°C unless otherwise specified

Collector - Base Breakdown Voltage	$V_{(BR)CBO}$	I_C=-100µA I_E=0	50			V
Collector - Emitter Breakdown Voltage	$V_{(BR)CEO}$	I_C=-10mA I_B=0	45			V
Emmiter - Base Breakdown Voltage	$V_{(BR)EBO}$	I_E=-10µA, 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 Voltage	V_{BE}	I_C=-500mA ,V_{CE}=-2V			1.2	V
Transition Frequency	f_T	V_{CE}=5V, I_C=10mA, f=100MHz	100			MHz

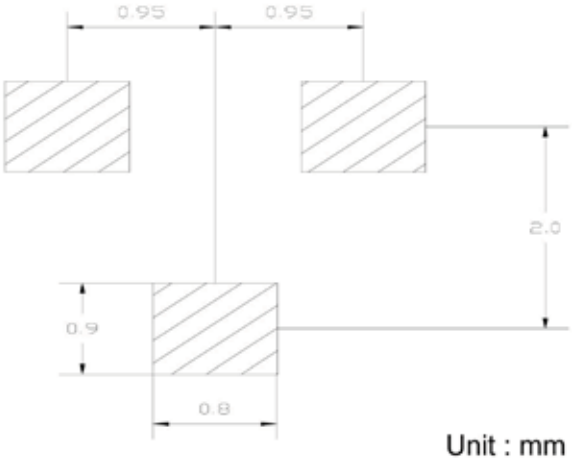
Package Outline

Plastic surface mounted package SOT-23



SOT-23		
Dim	Min	Max
A	2.85	2.95
B	1.25	1.35
C	1.0 Typical	
D	0.4 Typical	
E	0.35	0.48
G	1.85	1.95
H	0.02	0.1
J	0.1 Typical	
K	2.35	2.45
All Dimensions in mm		

SOLDERING FOOTPRINT



Unit : mm

PACKAGE INFORMATION

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