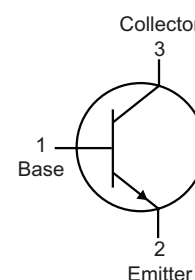
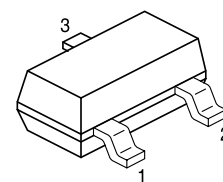


# Silicon Epitaxial Planar Transistor



## Features:

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

## Applications:

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

## Pin Configuration:

1. Base
2. Emitter
3. Collector

## Maximum Ratings

Parameter	Symbol	Value	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 Current - Peak	$I_{CM}$	1	A
Total Power Dissipation	$P_{TOT}$	250	mW
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	417	°C/W
Junction and Storage Temperature	$T_j, T_{stg}$	-65 to +150	°C

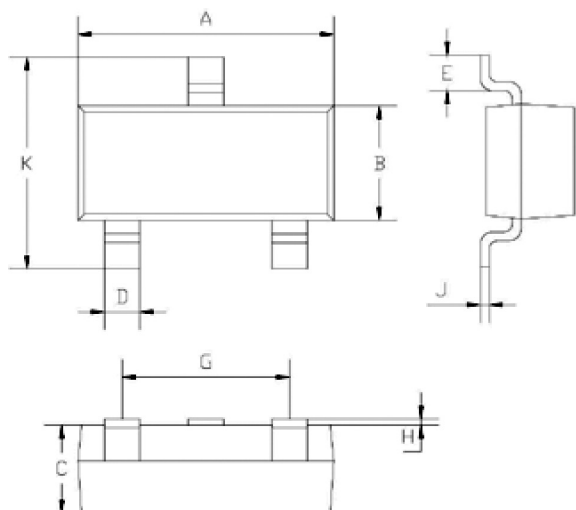
# Silicon Epitaxial Planar Transistor

## Electrical Characteristics ( $T_a = 25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Test Conditions	Min.	Typ.	Max.	Unit
Collector - Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C = -100\mu\text{A}, I_E = 0$	50			V
Collector - Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C = -10\text{mA}, I_B = 0$	45			
Emitter - Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E = -10\mu\text{A}, I_C = 0$	5			
Collector Cut-Off Current	$I_{CBO}$	$V_{CB} = -20\text{V}, I_E = 0$			0.1	$\mu\text{A}$
Emitter Cut-Off Current	$I_{EBO}$	$V_{EB} = 5\text{V}, I_C = 0$			0.1	
DC Current Gain	$h_{FE}$	$V_{CE} = 1\text{V}, I_C = 100\text{mA}$ $V_{CE} = 1\text{V}, I_C = 300\text{mA}$ $V_{CE} = 1\text{V}, I_C = 500\text{mA}$	100 70 40		600	
Collector - Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = -500\text{mA}, I_B = -50\text{mA}$			0.62	V
Base Emitter Voltage	$V_{BE}$	$I_C = -500\text{mA}, V_{CE} = -2\text{V}$			1.2	
Transition Frequency	$f_T$	$V_{CE} = 5\text{V}, I_C = 10\text{mA}, f = 100\text{MHz}$	100			MHz

## Package Outline

Plastic surface mounted package

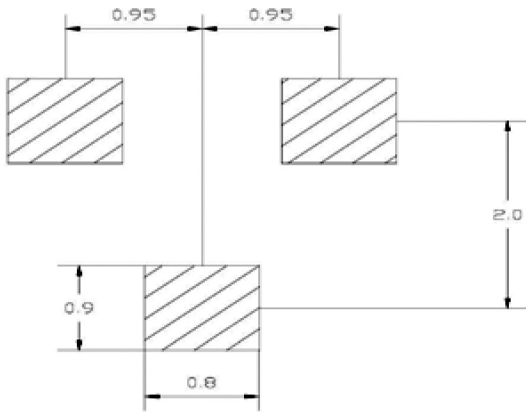


Dimensions	Min.	Max.
A	2.85	2.95
B	1.25	1.35
C	1 Typical	
D	0.4 Typical	
E	0.35	0.48
G	1.85	1.95
H	0.02	0.1
J	0.1 Typical	
K	2.35	2.45

Dimensions : Millimetres

# Silicon Epitaxial Planar Transistor

## Soldering Footprint



Dimensions : Millimetres

## Part Number Table

Description	Part Number
Transistor, NPN, 0.5A, 45V, SOT23	BCX19

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