

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

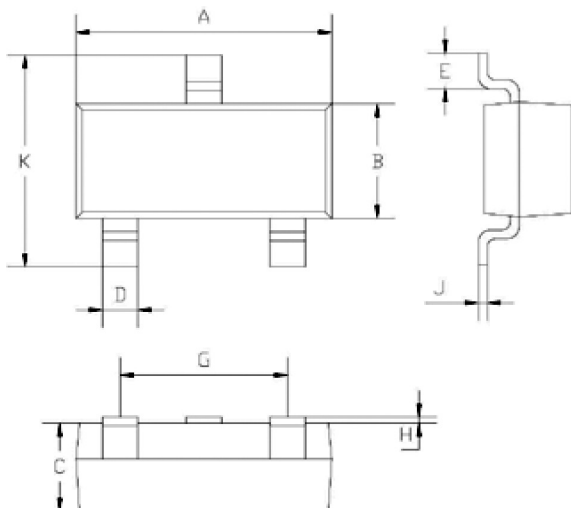
Parameter	Symbol	Value	Unit
Collector - Base Voltage	V_{CBO}	50	V
Collector - Emitter Voltage	V_{CEO}	45	
Emitter - Base Voltage	V_{ebo}	5	
Collector Current Continuous	I_C	500	mA
Collector Current - Peak	I_{CM}	1	A
Total Power Dissipation	P_{TOT}	250	mW
Thermal Resistance, Junction to Ambient	$R_{\theta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

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	μA
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

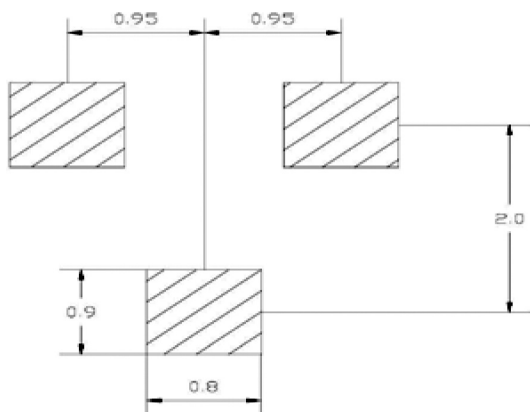
Plastic surface mounted package



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

Soldering Footprint



Dimensions : Millimetres

Part Number Table

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

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