

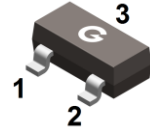
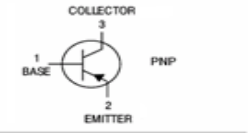
Features

- High current gain
- Low collector-emitter saturation voltage
- Complement to BCX70

HF

Mechanical Data

- Case: SOT-23
- Molding Compound: UL Flammability Classification Rating 94V-0
- Terminals: Matte tin-plated leads; solderability-per MIL-STD-202, Method 208



SOT-23

Ordering Information

Part Number	Package	Shipping Quantity	Marking Code
BCX71G	SOT-23	3000 pcs / Tape & Reel	BG
BCX71H	SOT-23	3000 pcs / Tape & Reel	BH
BCX71J	SOT-23	3000 pcs / Tape & Reel	BJ
BCX71K	SOT-23	3000 pcs / Tape & Reel	BK

Maximum Ratings (@ T_A = 25°C unless otherwise specified)

Parameter	Symbol	Value	Unit
Collector-Base Voltage	V _{CBO}	-45	V
Collector-Emitter Breakdown Voltage	V _{CEO}	-45	V
Emitter-Base Breakdown Voltage	V _{EBO}	-5	V
Collector Current (Continuous)	I _C	-100	mA
Peak Collector Current	I _{CM}	-200	mA
Peak Base Current	I _{BM}	-200	mA

Thermal Characteristics

Parameter	Symbol	Value	Unit
Power Dissipation (T _A = 25°C)	P _D	0.33	W
Thermal Resistance Junction-to-Air	R _{θJA}	357	°C/W
Thermal Resistance Junction-to-Case	R _{θJC}	250	°C/W
Junction Temperature	T _J	-55 ~ +150	°C
Storage Temperature Range	T _{STG}	-55 ~ +150	°C

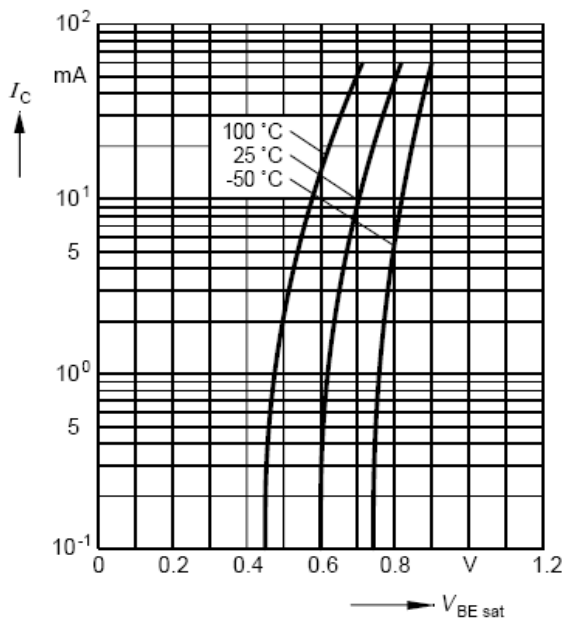
Electrical Characteristics (@ $T_A = 25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C = -10\mu\text{A}, I_E = 0$	-45	-	-	V
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C = -10\text{mA}, I_B = 0$	-45	-	-	V
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E = -1\mu\text{A}, I_C = 0$	-5	-	-	V
Collector Cut-off Current	I_{CBO}	$V_{CB} = -45\text{V}, I_E = 0$	-	-	-20	nA
Emitter Cut-off Current	I_{EBO}	$V_{EB} = -4\text{V}, I_C = 0$	-	-	-20	nA
DC Current Gain	h_{FE}	$V_{CE} = -5\text{V}, I_C = -10\mu\text{A}$				
		BCX71G	20	-	-	-
		BCX71H	30	-	-	-
		BCX71J	40	-	-	-
		BCX71K	100	-	-	-
		$V_{CE} = -5\text{V}, I_C = -2\text{mA}$				
		BCX71G	120	-	220	-
		BCX71H	180	-	310	-
		BCX71J	250	-	460	-
		BCX71K	380	-	630	-
		$V_{CE} = -1\text{V}, I_C = -50\text{mA}$				
		BCX71G	60	-	-	-
Collector-emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = -10\text{mA}, I_B = -0.25\text{mA}$	-	-	-0.25	V
		$I_C = -50\text{mA}, I_B = -1.25\text{mA}$	-	-	-0.55	V
Base-emitter Saturation Voltage	$V_{BE(sat)}$	$I_C = -10\text{mA}, I_B = -0.25\text{mA}$	-	-	-0.85	V
		$I_C = -50\text{mA}, I_B = -1.25\text{mA}$	-	-	-1.05	V
Base-emitter Voltage	$V_{BE(ON)}$	$I_C = -10\mu\text{A}, V_{CE} = -5\text{V}$	-	-0.52	-	V
		$I_C = -2\text{mA}, V_{CE} = -5\text{V}$	-0.55	-0.65	-0.75	V
		$I_C = -50\text{mA}, V_{CE} = -1\text{V}$	-	-0.78	-	V
Current-Gain—Bandwidth Product	f_T	$V_{CE} = -5\text{V}, I_C = -20\text{mA}$ $f = 100\text{MHz}$	-	250	-	MHz

Ratings and Characteristic Curves (@ $T_A = 25^\circ\text{C}$ unless otherwise specified)

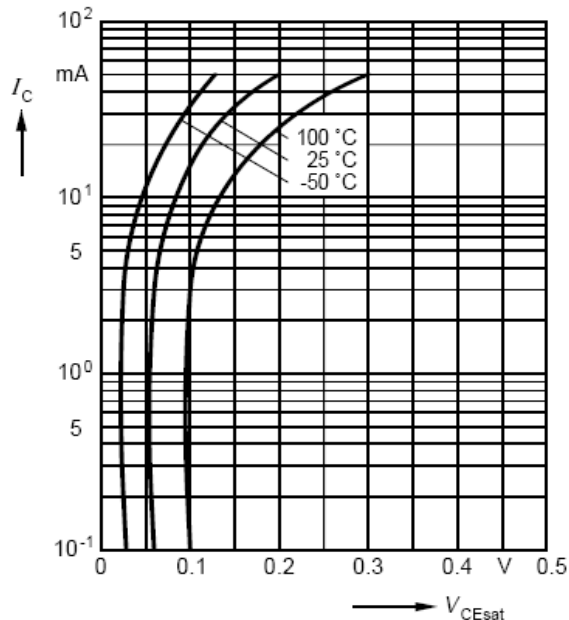
Base-emitter saturation voltage

$$I_C = f(V_{BEsat}), h_{FE} = 40$$

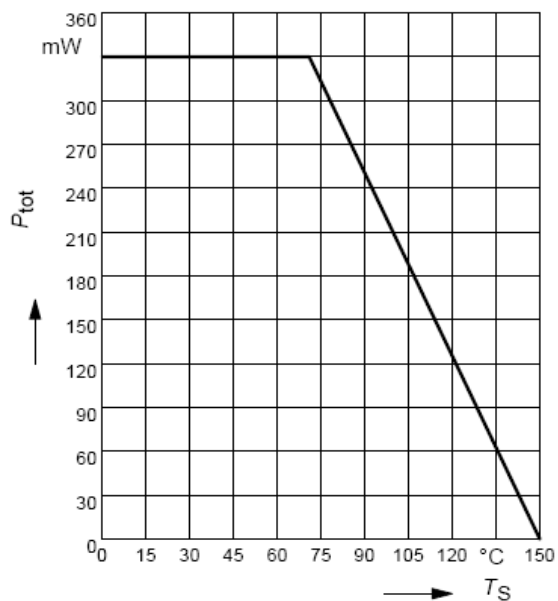


Collector-emitter saturation voltage

$$I_C = f(V_{CEsat}), h_{FE} = 40$$

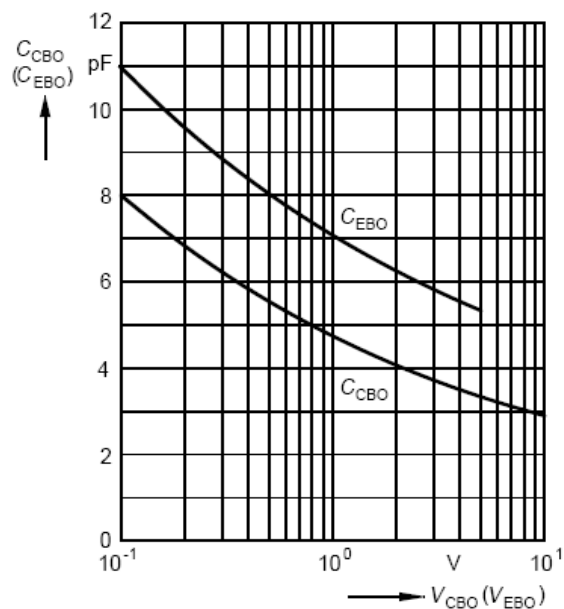


Total power dissipation $P_{tot} = f(T_S)$

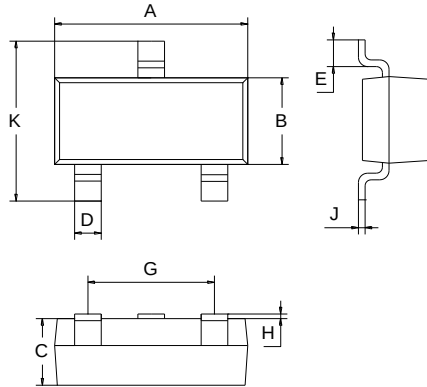


Collector-base capacitance $C_{CB} = f(V_{CBO})$

Emitter-base capacitance $C_{EB} = f(V_{EBO})$



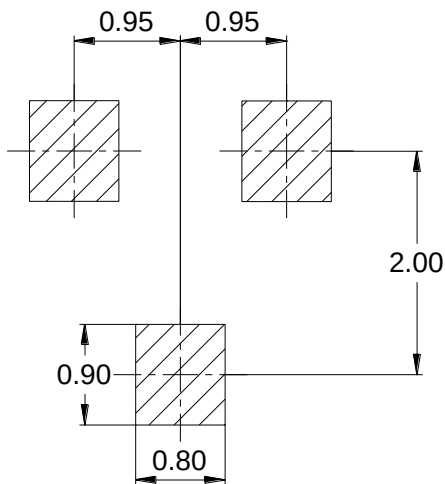
Package Outline Dimensions (Unit: mm)



SOT-23		
Dimension	Min.	Max.
A	2.70	3.10
B	1.10	1.50
C	0.90	1.10
D	0.30	0.50
E	0.35	0.48
G	1.80	2.00
H	0.02	0.10
J	0.05	0.15
K	2.20	2.60

Package Outline Dimensions (Unit: mm)

SOT-23



IMPORTANT NOTICE

Changzhou Galaxy Century Microelectronics (GME) reserves the right to make changes without further notice to any product information (copyrighted) herein to make corrections, modifications, improvements, or other changes. GME does not assume any liability arising out of the application or use of any product described herein; neither does it convey any license under its patent rights, nor the rights of others.