

**BCX71G BCX71H
BCX71J BCX71K**

Collector current (d.c.)	$-I_C$	max.	200 mA
Base current	$-I_B$	max.	50 mA
Total power dissipation up to $T_{amb} = 25\text{ }^{\circ}\text{C}$	P_{tot}	max.	250 mW
Storage temperature	T_{stg}	-55 to +150	$^{\circ}\text{C}$
Junction temperature	T_j	max.	150 $^{\circ}\text{C}$

THERMAL RESISTANCE

From junction to ambient	$R_{th\ j-a}$	=	500 K/W
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CHARACTERISTICS

$T_{amb} = 25\text{ }^{\circ}\text{C}$ unless otherwise specified

Collector-emitter cut-off current

$V_{EB} = 0; -V_{CE} = 45\text{ V}$	$-I_{CES}$	<	20 nA
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$V_{EB} = 0; -V_{CE} = 45\text{ V}; T_{amb} = 150\text{ }^{\circ}\text{C}$	$-I_{CES}$	<	20 mA
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Emitter-base cut-off current

$I_C = 0; -V_{EB} = 4\text{ V}$	$-I_{EB0}$	<	20 nA
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Saturation voltages

$-I_C = 10\text{ mA}; -I_B = 0,25\text{ mA}$	$-V_{CEsat}$	0,06 to 0,25	V
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$-V_{BEsat}$	0,6 to 0,85	V
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$-I_C = 50\text{ mA}; -I_B = 1,25\text{ mA}$	$-V_{CEsat}$	0,12 to 0,55	V
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$-V_{BEsat}$	0,68 to 1,05	V
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Transition frequency at $f = 100\text{ MHz}$.

$-V_{CE} = 5\text{ V}; -I_C = 10\text{ mA}$	f_T	typ.	180 MHz
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Capacitance at $f = 1\text{ MHz}$

$-V_{CB} = 10\text{ V}; I_E = I_C = 0$	C_c	typ.	4,5 pF
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Emitter capacitance at $f = 1\text{ MHz}$

$-V_{EB} = 0,5\text{ V}; I_C = I_C = 0$	C_e	typ.	11 pF
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Noise figure at $R_S = 2\text{ kW}$

$-V_{CE} = 5\text{ V}; -I_C = 200\text{ mA}; B = 200\text{ Hz}$	F	typ.	2 dB
		<	6 dB

				BCX71G	71H	71J	71K
D.C. current gain							
$-V_{CE} = 5\text{ V}; -I_C = 10\text{ mA}$	h_{FE}	>	-	30	40	100	
$-V_{CE} = 5\text{ V}; -I_C = 2\text{ mA}$	h_{FE}	>	120	180	250	380	
		<	220	310	460	630	
$-V_{CE} = 1\text{ V}; -I_C = 50\text{ mA}$	h_{FE}	>	60	80	100	110	
Small-signal current gain							
$-V_{CE} = 5\text{ V}; -I_C = 2\text{ mA}; f = 1\text{ kHz}$	h_{fe}	>	125	175	250	350	
		<	250	350	500	700	
Output admittance							
$-V_{CE} = 5\text{ V}; -I_C = 2\text{ mA}; f = 1\text{ kHz}$	h_{oe}	typ.	18	24	30	50	mS
Base-emitter voltage							
$-V_{CE} = 5\text{ V}; -I_C = 2\text{ mA}$	V_{BE}			0,6 to 0,75	V		
		typ.		0,65	V		
$-V_{CE} = 5\text{ V}; -I_C = 10\text{ mA}$	V_{BE}	typ.		0,55	V		
$-V_{CE} = 1\text{ V}; -I_C = 50\text{ mA}$	V_{BE}	typ.		0,72	V		

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Continental Device India Limited

C-120 Naraina Industrial Area, New Delhi 110 028, India.
Telephone + 91-11-579 6150 Fax + 91-11-579 9569, 579 5290
e-mail sales@cdil.com www.cdil.com