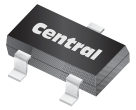
BCX70 SERIES

SURFACE MOUNT
NPN SILICON TRANSISTOR



SOT-23 CASE

Central Semiconductor Corp.

www.centralsemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR BCX70 Series types are NPN Silicon Transistors manufactured by the epitaxial planar process, epoxy molded in a surface mount package, designed for general purpose switching and amplifier applications.

MARKING CODES: BCX70G: AG
BCX70H: AH
BCX70J: AJ
BCX70K: AK

MAXIMUM RATINGS: (T_A=25°C)	**SYMBOL**		**UNITS**
Collector-Base Voltage	V_{CBO}	45	V
Collector-Emitter Voltage	V_{CEO}	45	V
Emitter-Base Voltage	V_{EBO}	5.0	V
Continuous Collector Current	I_C	100	mA
Peak Collector Current	I_{CM}	200	mA
Peak Base Current	I_{BM}	200	mA
Power Dissipation	P_D	350	mW
Operating and Storage Junction Temperature	T_J, T_{stg}	-65 to +150	°C
Thermal Resistance	Θ_{JA}	357	°C/W

ELECTRICAL CHARACTERISTICS: (T_A=25°C unless otherwise noted)

SYMBOL	**TEST CONDITIONS**	**MIN**	**TYP**	**MAX**	**UNITS**
I_{CBO}	V_{CB}=45V			20	nA
I_{CBO}	V_{CB}=45V, T_A=150°C			20	µA
I_{EBO}	V_{EB}=4.0V			20	nA
BV_{CBO}	I_C=10µA	45			V
BV_{CEO}	I_C=10mA	45			V
BV_{EBO}	I_E=1.0µA	5.0			V
$V_{CE(SAT)}$	I_C=10mA, I_B=250µA	0.05		0.35	V
$V_{CE(SAT)}$	I_C=50mA, I_B=1.25mA	0.10		0.55	V
$V_{BE(SAT)}$	I_C=10mA, I_B=250µA	0.60		0.85	V
$V_{BE(SAT)}$	I_C=50mA, I_B=1.25mA	0.70		1.05	V
$V_{BE(ON)}$	V_{CE}=5.0V, I_C=2.0mA	0.55		0.75	V
f_T	V_{CE}=5.0V, I_C=10mA, f=100MHz	100	250		MHz
C_c	V_{CB}=10V, I_E=0, f=1.0MHz		1.7		pF
C_e	V_{EB}=0.5V, I_C=0, f=1.0MHz		11		pF
NF	V_{CE}=5.0V, I_C=200µA, R_S=2.0kΩ, f=1.0kHz, BW=200Hz			6.0	dB

		BCX70G		**BCX70H**		**BCX70J**		**BCX70K**	
		MIN	**MAX**	**MIN**	**MAX**	**MIN**	**MAX**	**MIN**	**MAX**
h_{FE}	V_{CE}=5.0V, I_C=10µA			40		30		100	
h_{FE}	V_{CE}=5.0V, I_C=2.0mA	120	220	180	310	250	460	380	630
h_{FE}	V_{CE}=1.0V, I_C=50mA	50		70		90		100	

R2 (20-November 2009)

BCX70 SERIES

SURFACE MOUNT
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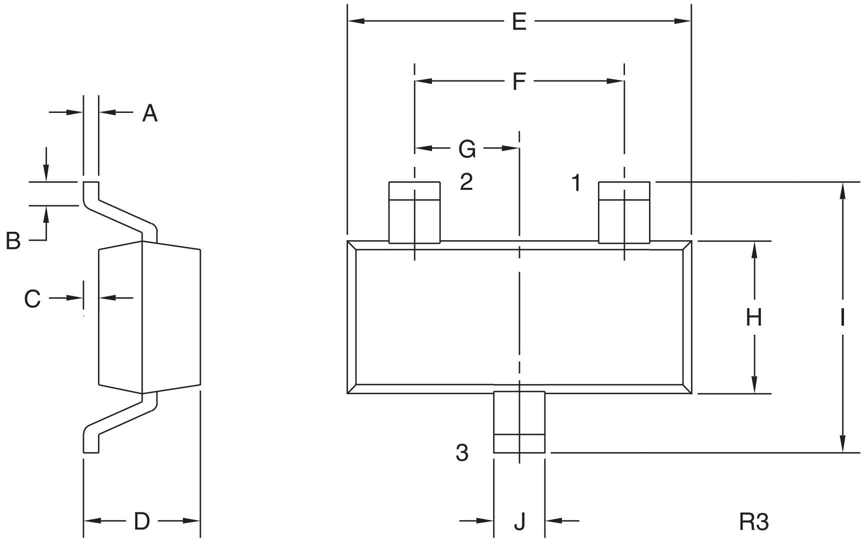
SOT-23 CASE - MECHANICAL OUTLINE



LEAD CODE:
1) BASE
2) EMITTER
3) COLLECTOR

DEVICE	MARKING CODE
BCX70G	AG
BCX70H	AH
BCX70J	AJ
BCX70K	AK

DIMENSIONS				
	INCHES		MILLIMETERS	
SYMBOL	MIN	MAX	MIN	MAX
A	0.003	0.007	0.08	0.18
B	0.006	-	0.15	-
C	-	0.005	-	0.13
D	0.035	0.043	0.89	1.09
E	0.110	0.120	2.80	3.05
F	0.075		1.90	
G	0.037		0.95	
H	0.047	0.055	1.19	1.40
I	0.083	0.098	2.10	2.49
J	0.014	0.020	0.35	0.50

SOT-23 (REV: R3)

R2 (20-November 2009)