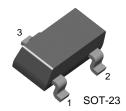


BCX70K

General Purpose Transistor



NPN Epitaxial Silicon Transistor

1. Base 2. Emitter 3. Collector

Absolute Maximum Ratings T_a=25°C unless otherwise noted

Symbol	Parameter	Value	Units
V _{CBO}	Collector-Base Voltage	45	V
V _{CEO}	Collector-Emitter Voltage	45	V
V _{EBO}	Emitter-Base Voltage	5	V
I _C	Collector Current	200	mA
P _C	Collector Power Dissipation	350	mW
T _{STG}	Storage Temperature	-55 ~ 150	°C

Refer to KST3904 for graphs

Electrical Characteristics T_a=25°C unless otherwise noted

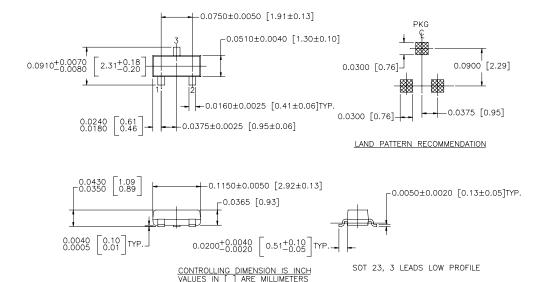
Symbol	Parameter	Test Condition	Min.	Max.	Units
BV _{CEO}	Collector-Emitter Breakdown Voltage	I _C =2.0mA, I _B =0	45		V
BV _{EBO}	Emitter-Base Breakdown Voltage	I _E =1.0μA, I _C =0	5		V
I _{CES}	Collector Cut-off Current	V _{CE} =32V, V _{BE} =0		20	nA
I _{EBO}	Emitter Cut-off Current	V _{EB} =4V, I _C =0		20	nA
h _{FE}	DC Current Gain	V_{CE} =5V, I_{C} =10 μ A V_{CE} =5V, I_{C} =2.0mA V_{CE} =1V, I_{C} =50mA	100 380 100	630	
V _{CE} (sat)	Collector-Emitter Saturation Voltage	I _C =10mA, I _B =0.25mA I _C =50mA, I _B =1.25mA		0.35 0.55	V V
V _{BE} (sat)	Base-Emitter Saturation Voltage	I _C =10mA, I _B =0.25mA I _C =50mA, I _B =1.25mA	0.6 0.7	0.85 1.05	V V
V _{BE} (on)	Base-Emitter On Voltage	I _C =2.0mA, V _{CE} =5V	0.55	0.75	V
f _T	Current Gain Bandwidth Product	I _C =10mA, V _{CE} =5V, f=100MHz	125		MHz
C _{ob}	Output Capacitance	V _{CB} =10V, I _E =0, f=1MHz		4.5	pF
NF	Noise Figure	V_{CE} =5V, I_{C} =0.2mA R_{S} =2K Ω , f=1KHz		6	dB
t _{ON}	Turn On Time	I _C =10mA, I _{B1} =1.0mA		150	ns
t _{OFF}	Turn Off Time	V_{BB} =3.6V, I_{B2} =1.0mA R_1 = R_2 =5K Ω , R_L =990 Ω		800	ns

Marking



Package Dimensions

SOT-23



NOTE: UNLESS OTHERWISE SPECIFIED

- 1. STANDARD LEAD FINISH 150 MICROINCHES / 3.81 MICROMETERS MINIMUM TIN / LEAD (SOLDER) ON ALLOY 42
- 2. REFERENCE JEDEC REGISTRATION TO-236, VARIATION AB, ISSUE G, DATED JUL 1993

Dimensions in Millimeters

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EnSigna™	I^2C^{TM}	OCX^{TM}	RapidConfigure™	UHC™
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Programmable Active Droop™		OPTOPLANAR™	SMART START™	

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Definition of Terms

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