Elektronische Bauelemente

BCX70K

NPN Silicon
Plastic-Encapsulate Transistor

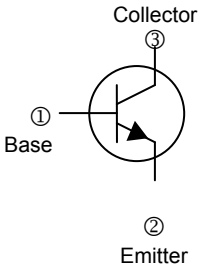
RoHS Compliant Product
A suffix of "-C" specifies halogen & lead-free

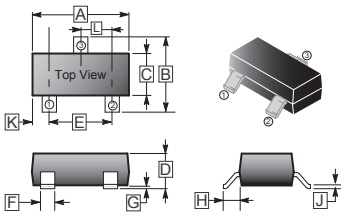
SOT-23

FEATURES

- Low Current
- Low Voltage

MARKING : AK





REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	2.70	3.04	G	-	0.18
B	2.10	2.80	H	0.40	0.60
C	1.20	1.60	J	0.08	0.20
D	0.89	1.40	K	0.6 REF.	
E	1.78	2.04	L	0.85	1.15
F	0.30	0.50			

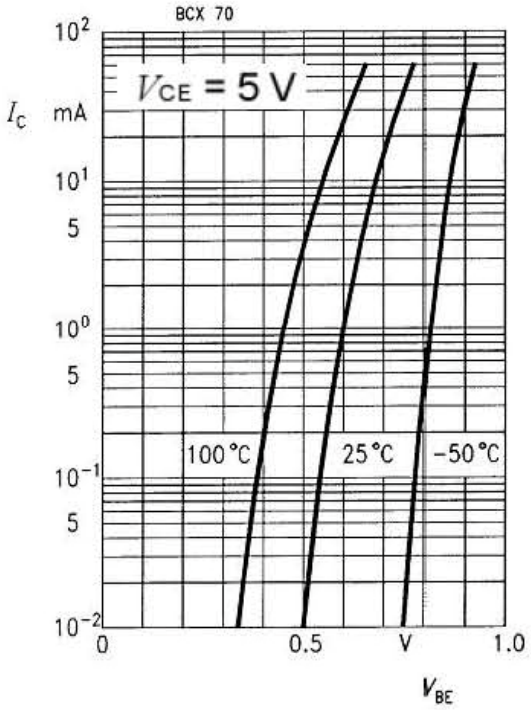
MAXIMUM RATINGS (at T_a = 25°C unless otherwise specified)

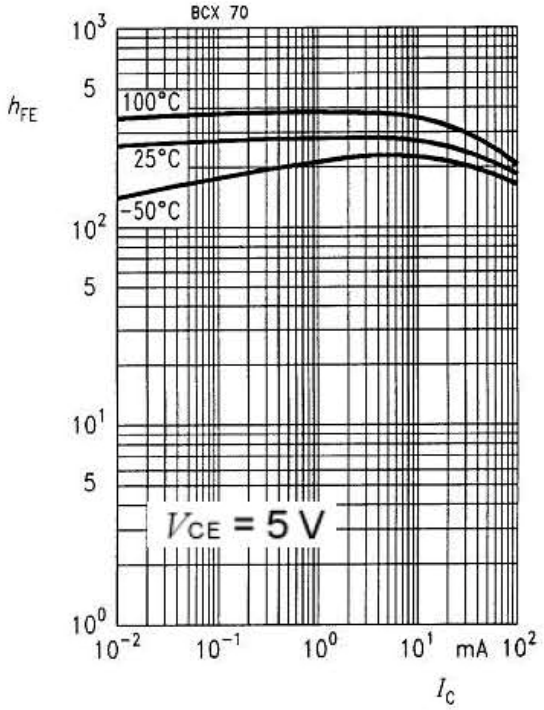
PARAMETER	SYMBOL	RATINGS	UNIT
Collector - Base Voltage	V_{CBO}	45	V
Collector - Emitter Voltage	V_{CEO}	45	V
Emitter - Base Voltage	V_{EBO}	5	V
Collector Current - Continuous	I_C	200	mA
Collector Power Dissapation	P_C	250	mW
Junction, Storage Temperature	T_J, T_{STG}	150, -55~150	℃

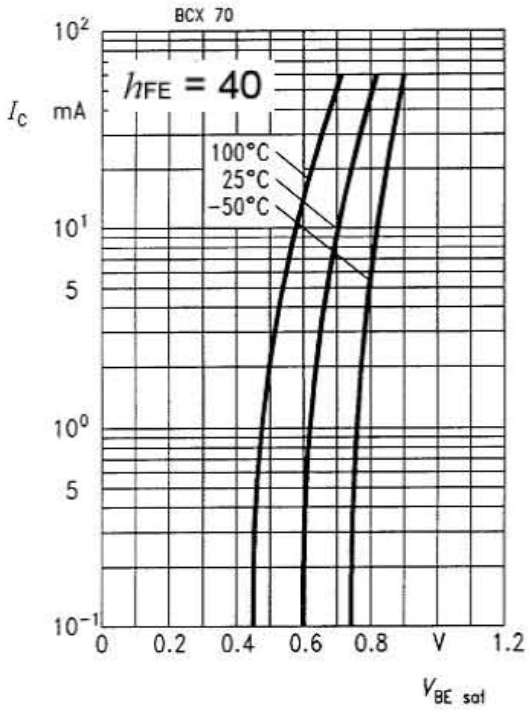
ELECTRICAL CHARACTERISTICS (at T_a = 25°C unless otherwise specified)

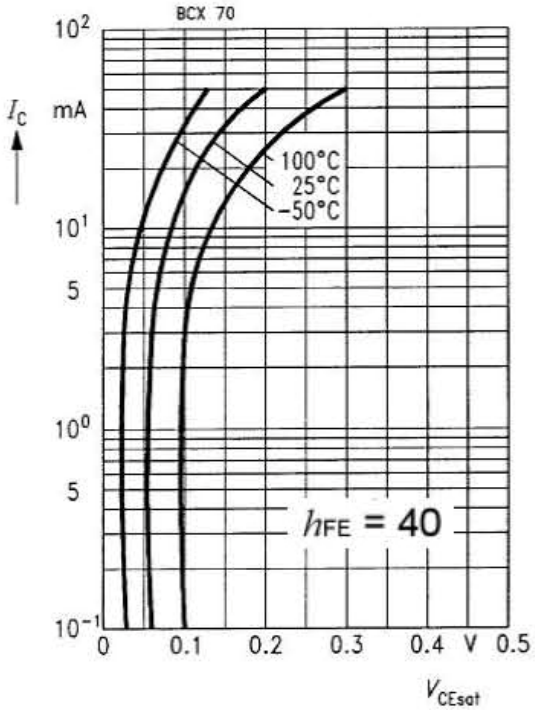
PARAMETER	TEST CONDITIONS	SYMBOL	MIN.	TYP.	MAX.	UNIT
Collector-Base Breakdown Voltage	I_C=10μA, I_E=0	$V_{(BR)CBO}$	45			V
Collector-Emitter Breakdown Voltage	I_C=2mA, I_B=0	$V_{(BR)CEO}$	45			V
Emitter-Base Breakdown Voltage	I_E=1μA, I_C=0	$V_{(BR)EBO}$	5			V
Collector Cut-Off Current	V_{CE}=45V, V_{BE}=0	I_{CES}			20	nA
DC Current Gain	V_{CE}=5V, I_C=10μA	h_{FE1}	100			
	V_{CE}=5V, I_C=2mA	h_{FE2}	380		630	
	V_{CE}=1V, I_C=50mA	h_{FE3}	100			
Collector-Emitter Saturation Voltage	I_C=10mA, I_B=0.25mA	$V_{CE(sat)1}$	0.05		0.35	V
	I_C=50mA, I_B=1.25mA	$V_{CE(sat)2}$	0.1		0.55	V
Base-Emitter Saturation Voltage	I_C=10mA, I_B=-0.25mA	$V_{BE(sat)1}$	0.6		0.85	V
	I_C=50mA, I_B=1.25mA	$V_{BE(sat)2}$	0.7		1.05	V
Base-Emitter Voltage	V_{CE}=5V, I_C=2mA	V_{BE}	0.55		0.75	V
Collector Output Capacitance	V_{CB}=10V, I_E=0, f=1MHz	C_{OB}		1.7		pF
Noise Figure	V_{CE}=5V,I_C=200μA,f=1KHZ, BW=200HZ,RS=2KΩ	NF			6	dB
Gain-Bandwidth Product	V_{CE}=5V, I_C=10mA,f=100MHz	F_T	100	250		MHz

CHARACTERISTIC CURVES









CHARACTERISTIC CURVES