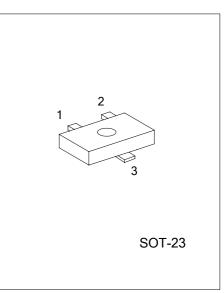
UTC BCX70

NPN EPITAXIAL SILICON TRANSISTOR

GENERAL PURPOSE TRANSISTOR

MARKING





1: Emitter 2: Base 3: Collector *Pb-free plating product number: BCX70L

ABSOLUTE MAXIMUM RATINGS

(Ta = 25° C unless otherwise noted)

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	Ι _C	200	mA
Collector Power Dissipation	Pc	350	mW
Storage Temperature	T _{STG}	-40 ~ +150	°C

ELECTRICAL CHARACTERISTICS

(Ta = 25° C unless otherwise noted)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-Emitter Breakdown Voltage	BV _{CEO}	I _C =2.0mA, I _B =0	45			V
Emitter-Base Breakdown Voltage	BV _{EBO}	I _E =1.0μF, I _C =0	5			V
Collector Cut-off Current	I _{CES}	V _{CE} =32V, V _{BE} =0			20	nA
Emitter Cut-off Current	I _{EBO}	$V_{EB}=4V, I_{C}=0$			20	nA
DC Current Gain	h _{FE}	V _{CE} =5V, I _C =10µA	100			
		V _{CE} =5V, I _C =2.0mA	380		630	
		V _{CE} =1V, I _C =50mA	100			
Collector-Emitter Saturation Voltage	V _{CE (sat)}	I _C =10mA, I _B =0.25mA			0.35	V
		I _C =50mA, I _B =1.25mA			0.55	V
Base-Emitter Saturation Voltage	V _{BE (sat)}	I _C =10mA, I _B =0.25mA	0.6		0.85	V
		I _C =50mA, I _B =1.25mA	0.7		1.05	V
Base-Emitter On Voltage	V _{BE (on)}	I _C =2.0mA, V _{CE} =5V	0.55		0.75	V
Current Gain Bandwidth Product	f_T	I _C =10mA, V _{CE} =5V, f=100MHz	125			MHz
Output Capacitance	C _{ob}	V _{CB} =10V, I _E =0, f=1MHz			4.5	P⁺
Noise Figure	NF	V _{CE} =5V, I _C =0.2mA, R _S =2KΩ f=1KHz			6	dB
Turn On Time	t _{ON}	I _C =10mA, I _{B1} =1.0mA			150	ns
Turn Off Time	t _{OFF}	V_{BB} =3.6V, I_{B2} =1.0mA, R_1 = R_2 =5K Ω R_L =990 Ω			800	ns

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