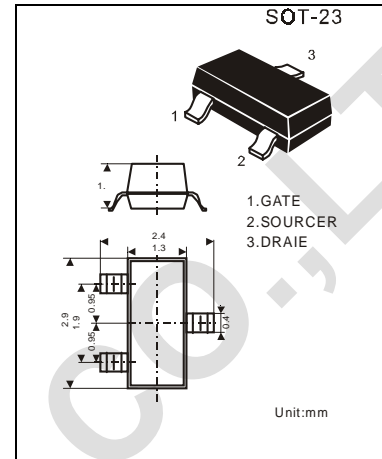


NPN EPITAXIAL SILICON TRANSISTOR

GENERAL PURPOSE TRANSISTORS

ABSOLUTE MAXIMUM RATINGS at Ta=25°C

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	Vcbo	30	V
Collector-Emitter Voltage	Vceo	25	V
Emitter-Base Voltage	Vebo	5.0	V
Collector Current	Ic	500	mA
Total Device Dissipation FR-5 Board(1) Ta=25°C	P <sub>D</sub>	225	mw
Derate above 25°C		1.8	mW/°C
Total Device Dissipation Alumina Substrate,(2) Ta=25°C	P <sub>D</sub>	300	mw
Derate above 25°C		2.4	mW/°C
Junction Temperature	T <sub>j</sub>	150	°C
Storage Temperature	T <sub>stg</sub>	-55-150	°C



ELECTRICAL CHARACTERISTICS at Ta=25°C

Characteristic	Symbol	Min	Typ	Max	Unit	Test Conditions
Collector-Base Voltage	V(BR) <sub>ceo</sub>	25			V	I <sub>c</sub> =10mA I <sub>b</sub> =0
Collector-Emitter Voltage	V(BR) <sub>ces</sub>	30			V	I <sub>c</sub> =10uA I <sub>c</sub> =0
Emitter Cutoff Current	I <sub>ebo</sub>			10	uA	V <sub>eb</sub> =5V I <sub>c</sub> =0
Collector Cutoff Current	I <sub>cbo</sub>			100 5.0	nA uA	V <sub>cb</sub> =20V I <sub>e</sub> =0 V <sub>cb</sub> =20V I <sub>e</sub> =0 T <sub>A</sub> =150°C
DC Current Gain	H <sub>FE</sub>	100 70 40		600		V <sub>ce</sub> =1.0V I <sub>c</sub> =-100mA V <sub>ce</sub> =1.0V I <sub>c</sub> =-300mA V <sub>ce</sub> =1.0V I <sub>c</sub> =-500mA
Collector-Emitter Saturation Voltage	V <sub>ce(sat)</sub>			620	mV	I <sub>c</sub> =-500mA I <sub>b</sub> =-50mA
Base-Emitter Saturation Voltage	V <sub>be(on)</sub>		1.2		V	V <sub>be</sub> =1V I <sub>c</sub> =500mA

\* 1.Total Device Dissipation : FR=1x0.75x0.062in .  
2.Alumina=0.4 x 0.3 x 0.024in.99.5% alumina

DEVICE MARKING:

BCX20LT1=U2