

2SC1923
Rev.E Mar.-2016

Silicon NPN transistor in a TO-92 Plastic Package.

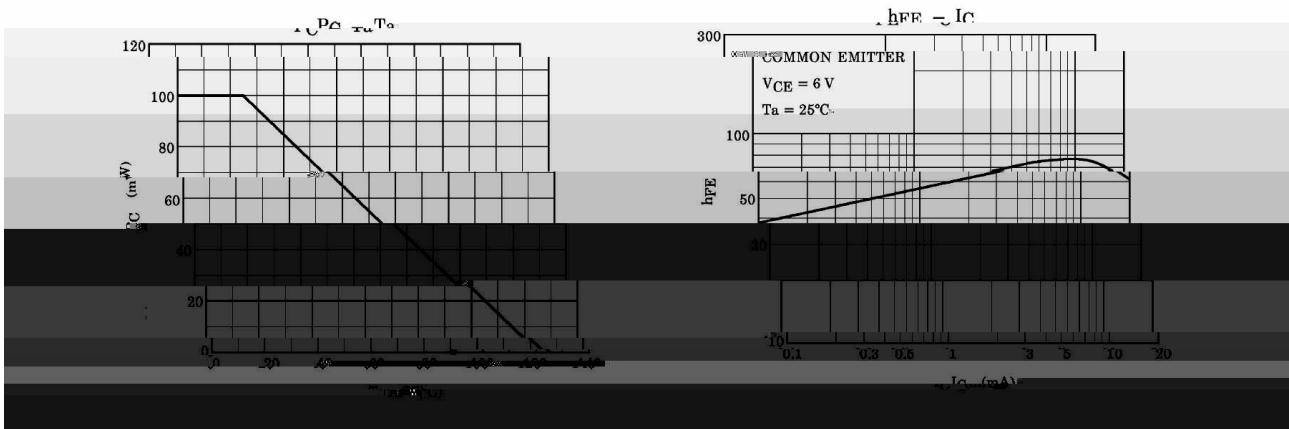
/ Absolute Maximum Ratings(Ta=25)

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	40	V
Collector to Emitter Voltage	V_{CEO}	30	V
Emitter to Base Voltage	V_{EBO}	4.0	V
Collector Current - Continuous	I_C	20	mA
Emitter Current - Continuous	I_E	-20	mA
Collector Power Dissipation	P_C	100	mW
Junction Temperature	T_j	150	
Storage Temperature Range	T_{stg}	-55 150	

/ Electrical Characteristics(Ta=25)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector Cut-Off Current	I_{CBO}	$V_{CB}=18V$ $I_E=0$			0.5	μA
Emitter Cut-Off Current	I_{EBO}	$V_{EB}=4.0V$ $I_C=0$			0.5	μA
DC Current Gain	h_{FE}	$V_{CE}=6.0V$ $I_C=1.0mA$	40		200	
Transition Frequency	f_T	$V_{CE}=6.0V$ $I_C=1.0mA$		550		MHz
Power Gain	G_{pe}	$V_{CE}=6.0V$ $f=100MHz$ $I_E=-1.0mA$	15	18		dB
Noise Figure	NF	$V_{CE}=6.0V$ $f=100MHz$ $I_E=-1.0mA$		2.5	5.0	dB
Collector- Base Time Constant	$C_{C.rbb}$	$V_{CE}=6.0V$ $f=30MHz$ $I_E=-1.0mA$			30	ps
Common Emitter Reverse Transfer Capacitance	C_{re}	$V_{CE}=6.0V$ $f=1.0MHz$		0.7		pF

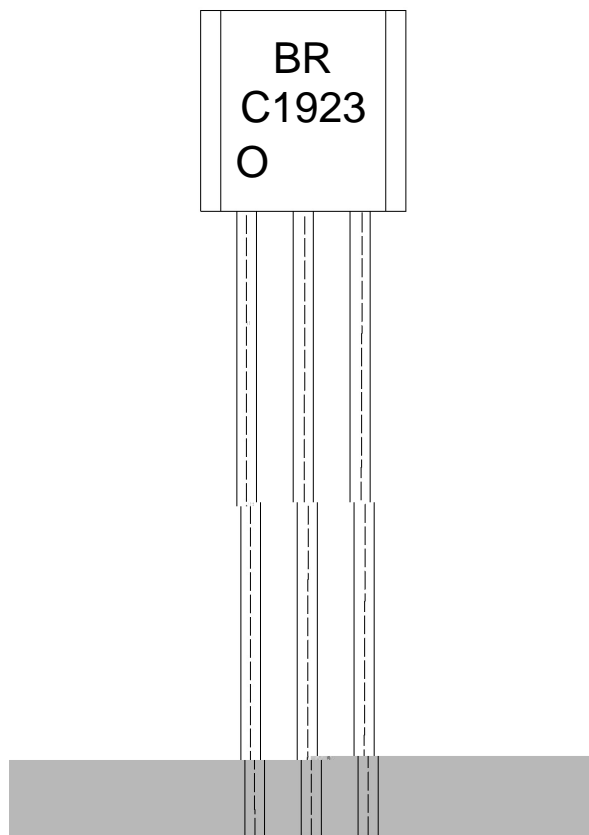
/ Electrical Characteristic Curve



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/ Package Dimensions

/ Marking Instructions



Note:

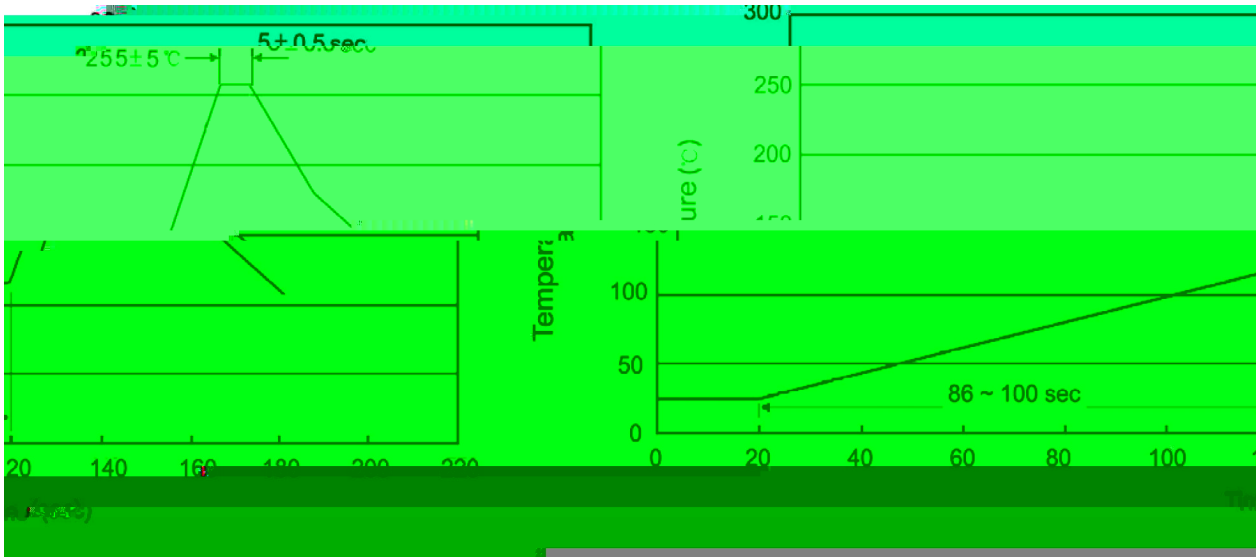
BR: Company Code.

C1923: Product Type.

O: h_{FE} Classifications Symbol

****: Lot No. Code, code change with Lot No.

() / Temperature Profile for Dip Soldering(Pb-Free)



Note:

- | | | | | | |
|---|-----|-----|----|----------|---|
| 1 | 25 | 150 | 60 | 90sec; | 1.Preheating:25~150 , Time:60~90sec. |
| 2 | 255 | 5 | 5 | 0.5sec; | 2.Peak Temp.:255 5 , Duration:5 0.5sec. |
| 3 | | | 2 | 10 /sec. | 3. Cooling Speed: 2~10 /sec. |

/ Resistance to Soldering Heat Test Conditions

270 5 10 1 sec. Temp:270±5 Time:10±1 sec

/ Packaging SPEC.

/ BULK

dBWB(37#)