

2SC3942
Rev.F Mar.-2016



DATA SHEET

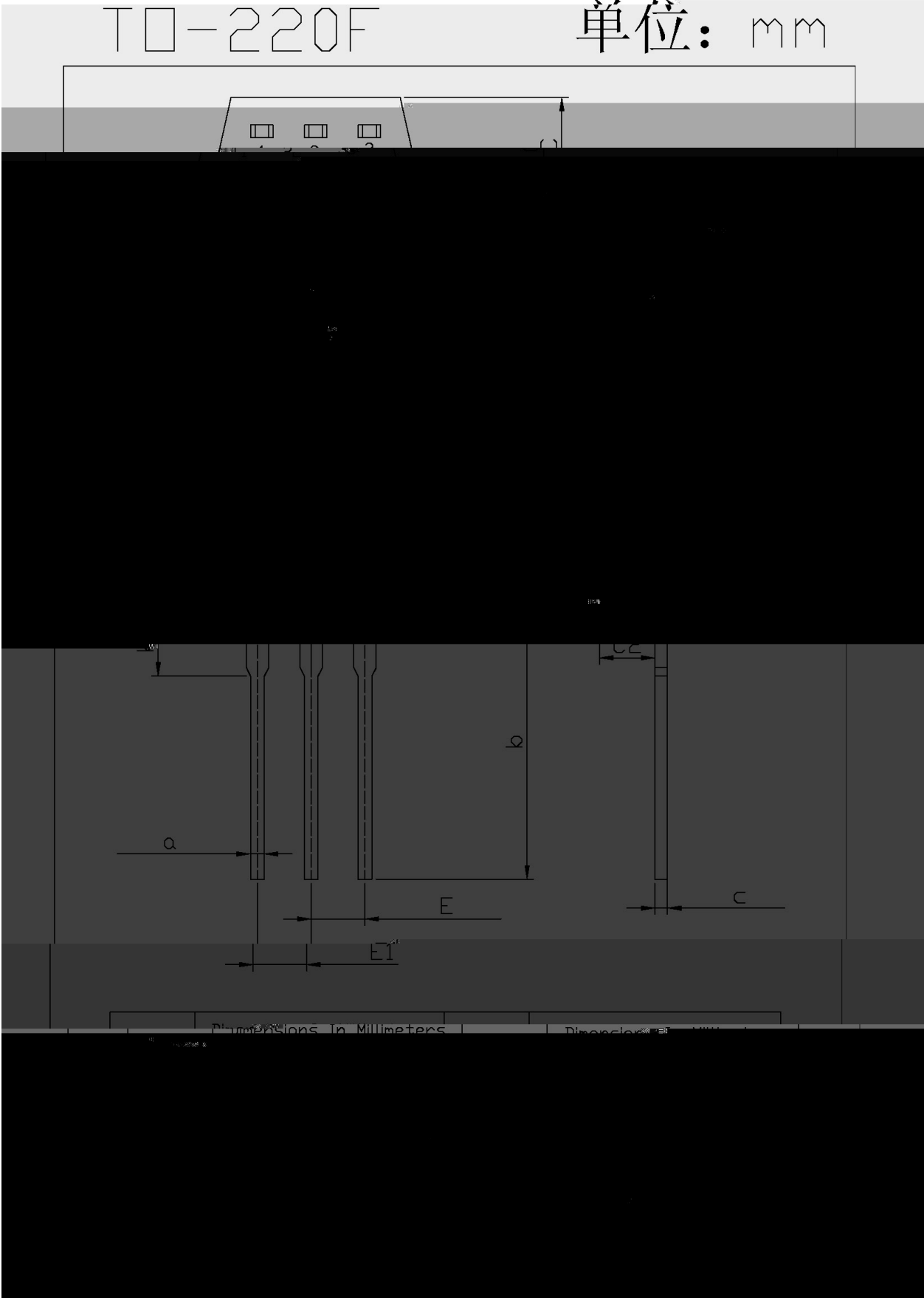
/ Absolute Maximum Ratings(Ta=25)

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	300	V
Collector to Emitter Voltage	V_{CEO}	300	V
Emitter to Base Voltage	V_{EBO}	7.0	V
Collector Current - Continuous	I_C	100	mA
Collector Current – Continuous(Pulse)	I_{CP}	200	mA
Collector Power Dissipation	P_C	2.0	W
	$P_C(T_c=25^{\circ}C)$	10	W
Junction Temperature	T_j	150	$^{\circ}C$
Storage Temperature Range	T_{stg}	-55 150	$^{\circ}C$

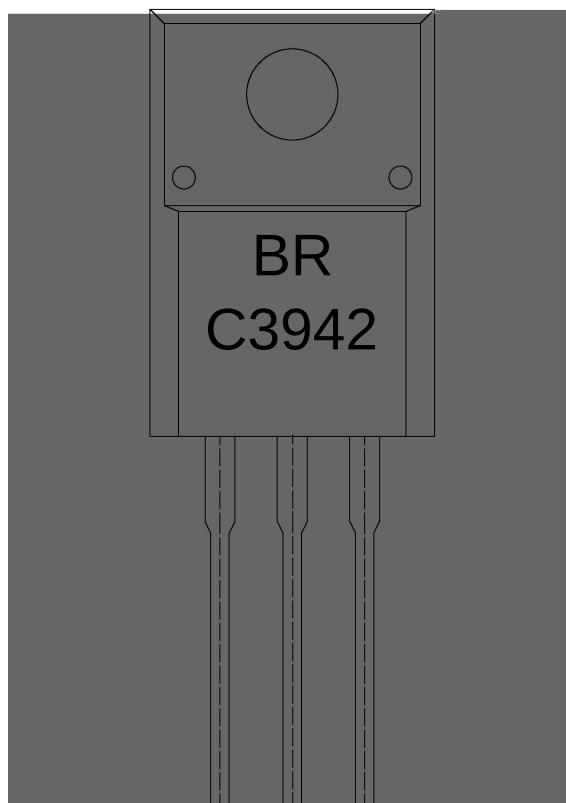
/ Electrical Characteristics(Ta=25)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector to Base Breakdown Voltage	V_{CBO}	$I_C=10\mu A$ $I_E=0$	300			V
Collector to Emitter Breakdown Voltage	V_{CEO}	$I_C=1.0mA$ $I_B=0$	300			V
Emitter to Base Breakdown Voltage	V_{EBO}	$I_E=10\mu A$ $I_C=0$	7.0			V
Collector Cut-Off Current	I_{CEO}	$V_{CE}=200V$ $I_B=0$			10	μA
DC Current Gain	h_{FE}	$V_{CE}=50V$ $I_C=5.0mA$	50		250	
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=30mA$ $I_B=3.0mA$			1.5	V
Base to Emitter Voltage	V_{BE}	$V_{CE}=10V$ $I_C=30mA$			1.2	V
Transition Frequency	f_T	$V_{CE}=30V$ $I_C=20mA$ $f=10MHz$	70	140		MHz
Collector output capacitance	C_{ob}	$V_{CB}=30V$ $I_E=0$ $f=1.0MHz$		2.7		pF

/ Package Dimensions



/ Marking Instructions



BR

C3942

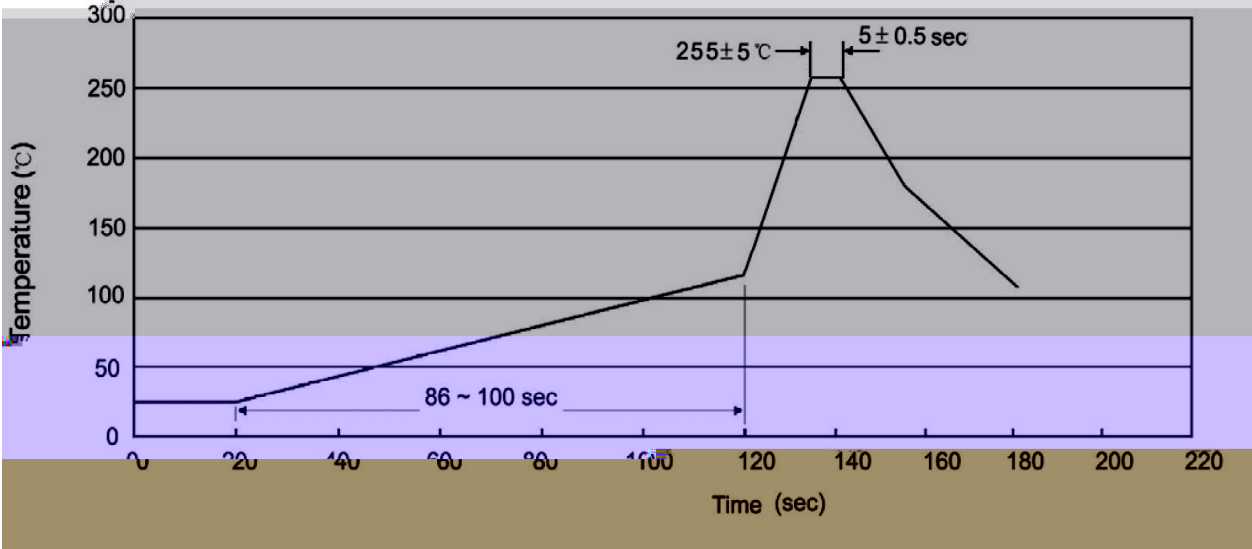
Note:

BR: Company Code.

C3942: Product Type.

****: 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

Package Type	Units 包装数量		Dimension 包装尺寸 (unit: mm ³)
封装形式	只 袋	袋 盒	只 盒