

BC547

Rev.E Mar.-2016

/ Descriptions

TO-92(R) NPN Silicon NPN transistor in a TO-92(R) Plastic Package.

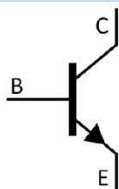
/ Features

High Voltage, Low Noise.

/ Applications

General purpose and switching application.

/ Equivalent Circuit



/ Pinning



PIN1 Emitter PIN 2 Base PIN 3 Collector

/ h_{FE} Classifications & Marking

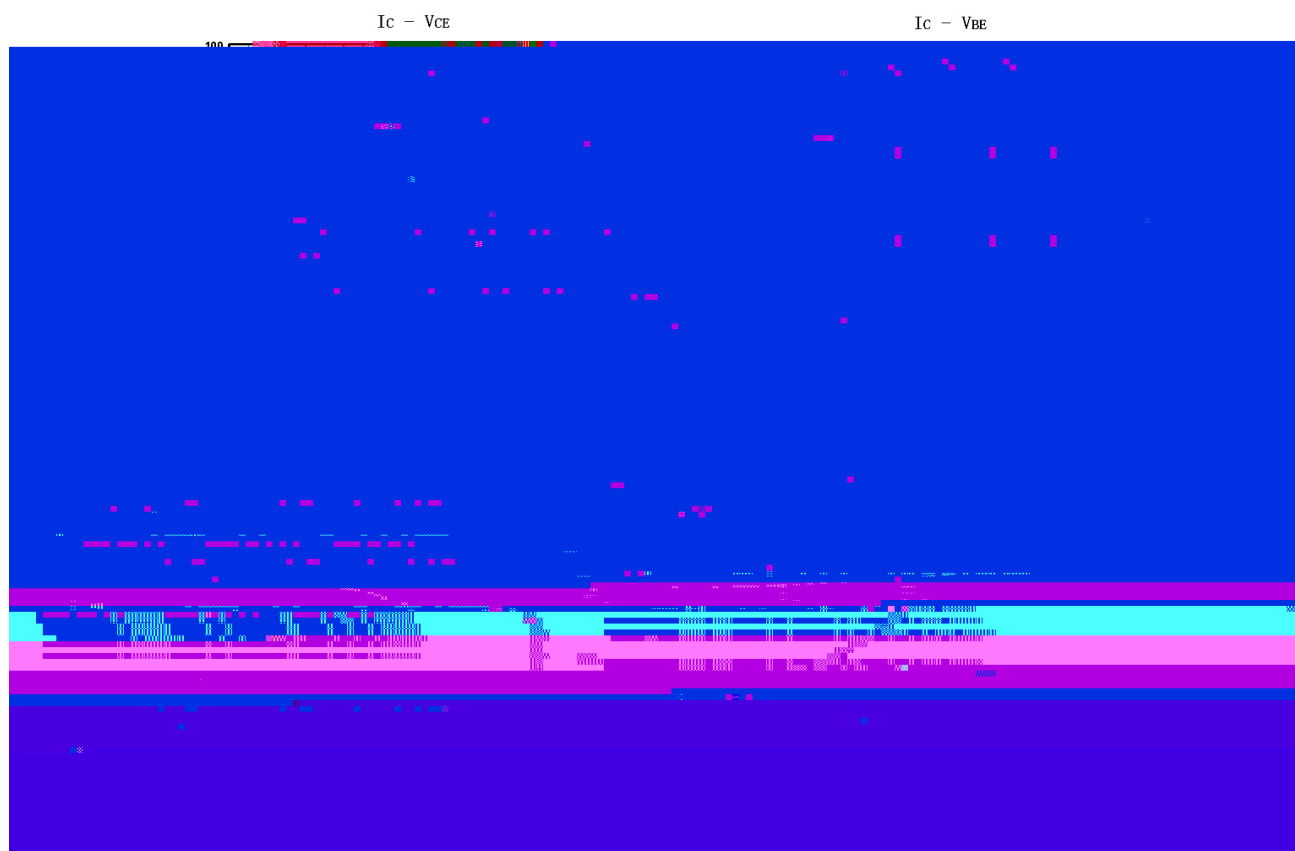
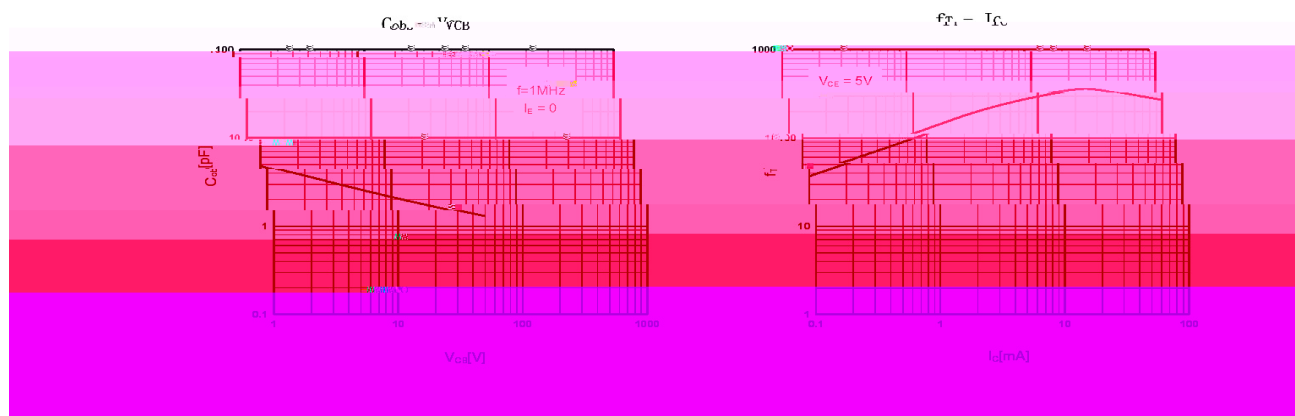
h_{FE} Classifications Symbol	A	B	C
h_{FE} Range			

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	50	V
Collector to Emitter Voltage	V_{CEO}	45	V
Emitter to Base Voltage	V_{EBO}	6.0	V
Collector Current - Continuous	I_C	100	mA
Emitter Current - Continuous	I_E	-100	mA
Collector Power Dissipation	P_C	625	mW
Junction Temperature	T_j	150	
Storage Temperature Range	T_{stg}	-55 150	

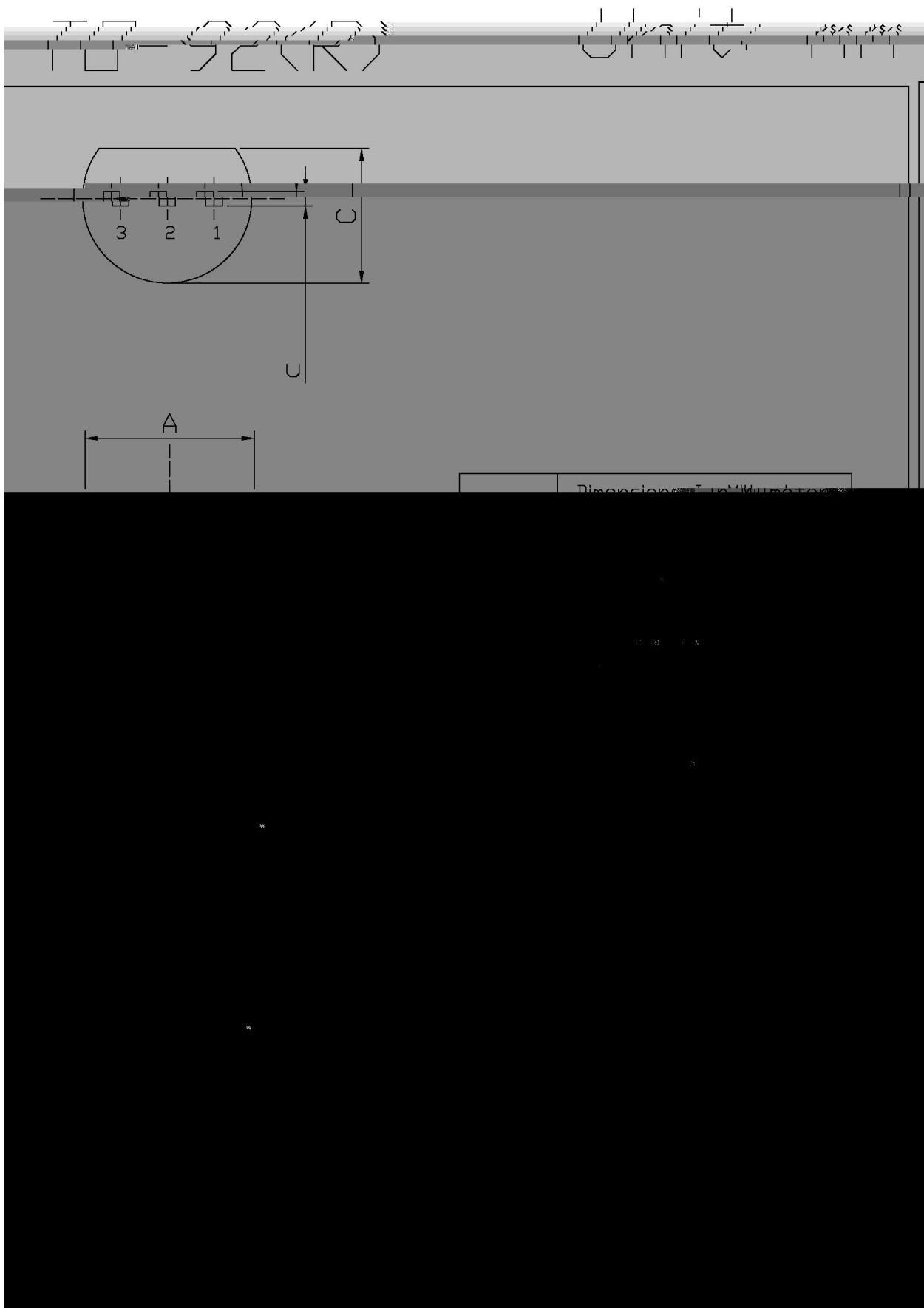
/ Electrical Characteristics($T_a=25^\circ\text{C}$)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector Cut-Off Current	I_{CBO}	$V_{CB}=30V$ $I_E=0$			0.015	μA
DC Current Gain	h_{FE}	$V_{CE}=5.0V$ $I_C=2.0mA$	110		800	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=100mA$ $I_B=5.0mA$			0.6	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=100mA$ $I_B=5.0mA$		0.9	1.1	V
Base-Emitter Voltage	$V_{BE(1)}$	$V_{CE}=5.0V$ $I_C=2.0mA$	0.58		0.7	V
	$V_{BE(2)}$	$V_{CE}=5.0V$ $I_C=10mA$			0.75	V

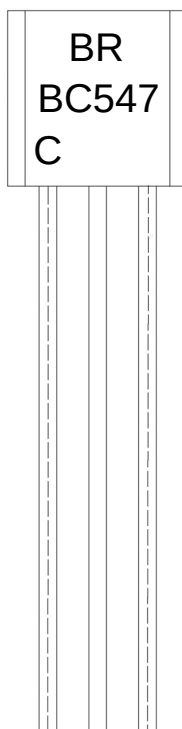
/ Electrical Characteristic Curve



/ Package Dimensions



/ Marking Instructions



BR

BC547

C h_{FE}

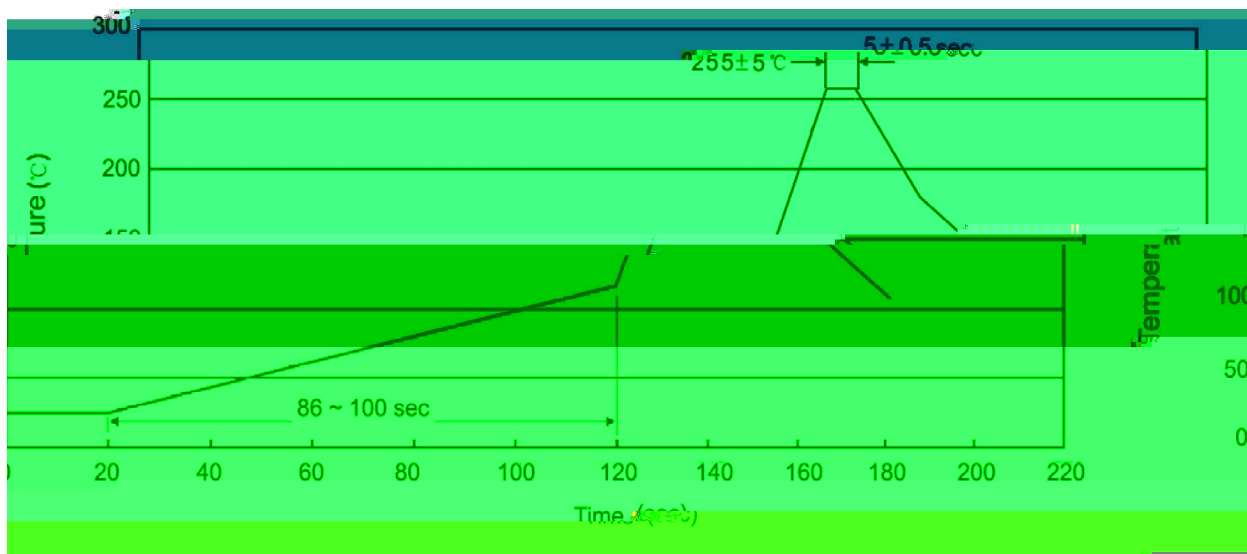
Note:

BR: Company Code.

BC547: Product Type.

C 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;
- 2 255±5 5±0.5sec;
- 3 2 10 /sec.

- 1.Preheating:25~150 , Time:60~90sec.
- 2.Peak Temp.:255±5 , Duration:5±0.5sec.
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					Dimension		(unit mm3)

/ AMMO

Package Type	Units					Dimension		(unit mm3)

/ Notices