

TIP41CI

Rev.F Mar.-2016



DATA SHEET

TO-251

NPN

Silicon NPN transistor in a TO-251 Plastic Package.

TIP42CI

Complement to TIP42CI.

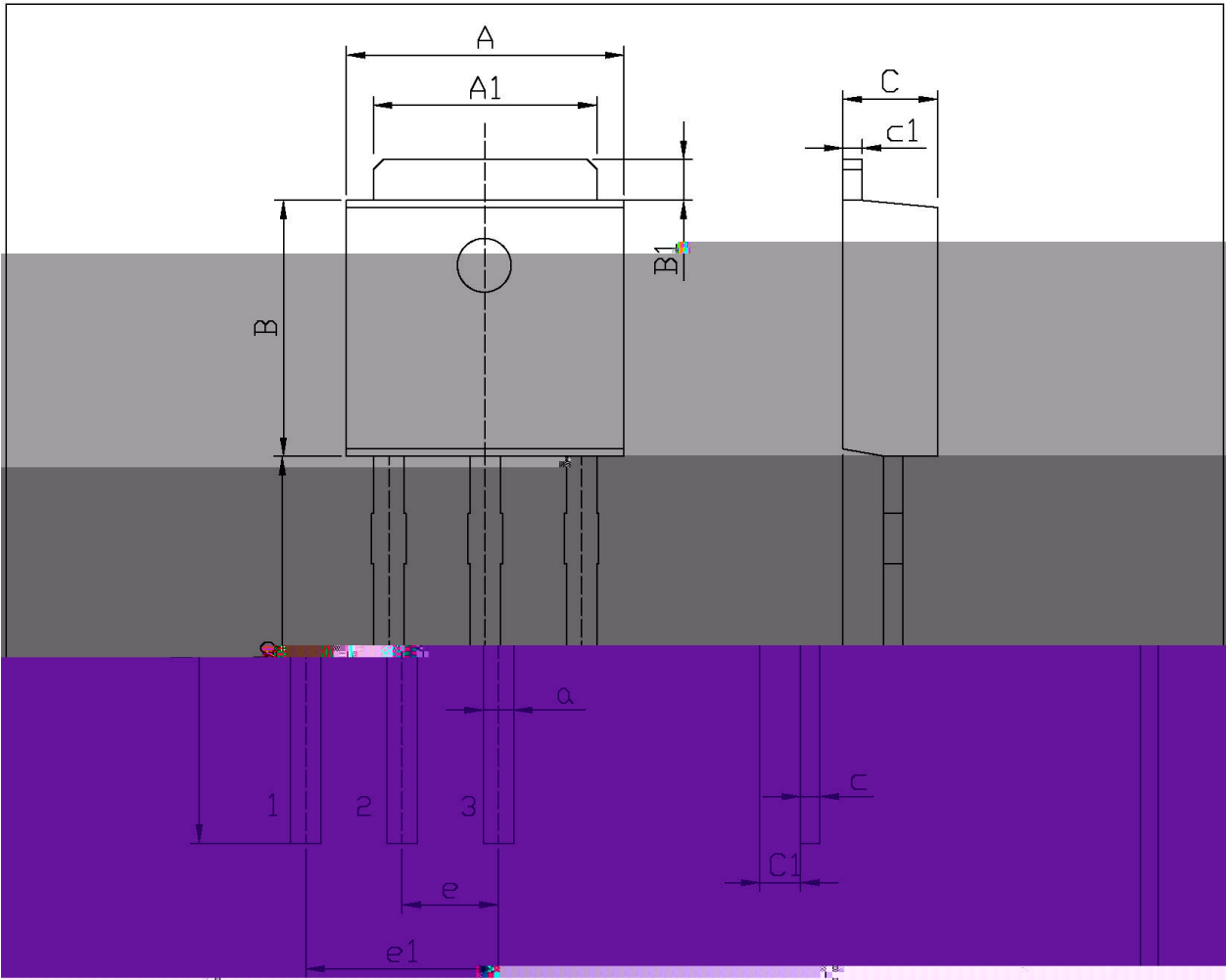
/ Absolute Maximum Ratings(Ta=25)

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	100	V
Collector to Emitter Voltage	V_{CEO}	100	V
Emitter to Base Voltage	V_{EBO}	5	V
Collector Current - Continuous	I_C	6	A
Peak Collector Current	I_{CP}	10	A
Base Current - Continuous	I_B	2	A
Collector Power Dissipation	P_C	1.5	W
Collector Power Dissipation	$P_C (T_c=25)$	25	W
Junction Temperature	T_j	150	
Storage Temperature Range	T_{sag}	-55 150	

/ Electrical Characteristics(Ta=25)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector to Emitter Breakdown Voltage	V_{CEO}	$I_C=30mA$ $I_B=0$	100			V
Collector Cut-Off Current	I_{CEO}	$V_{CE}=60V$ $I_B=0$			0.7	mA
Collector Cut-Off Current	I_{CES}	$V_{CE}=100V$ $V_{EB}=0$			400	μA
Emitter Cut-Off Current	I_{EBO}	$V_{EB}=5V$ $I_C=0$			1	mA
DC Current Gain	$h_{FE(1)}$	$V_{CE}=4V$ $I_C=3A$	15		75	
	$h_{FE(2)}$	$V_{CE}=4V$ $I_C=0.3A$	30			
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=6A$ $I_B=0.6A$			1.5	V
Base to Emitter Voltage	V_{BE}	$I_C=6A$ $V_{CE}=4V$			2	V
Transition Frequency	f_T	$V_{CE}=10V$ $I_C=500mA$	3			MHz

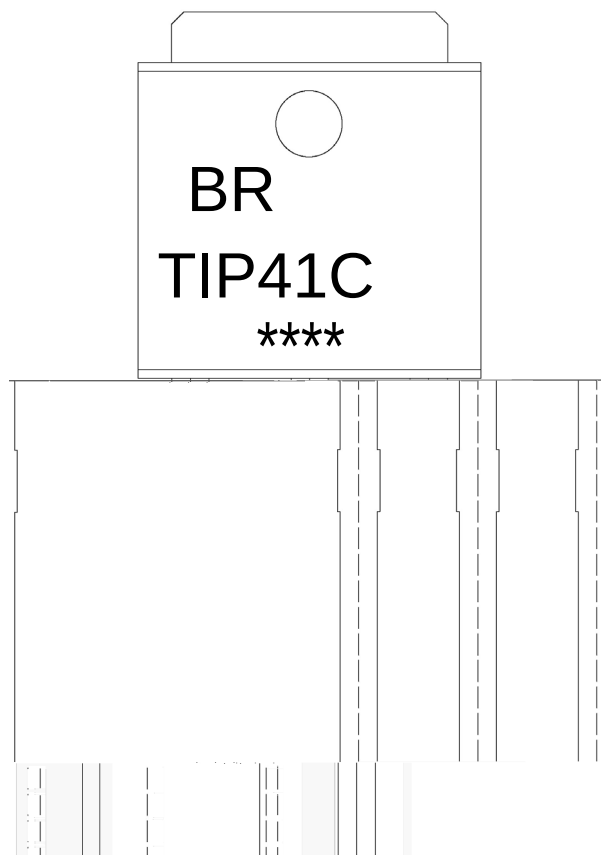
/ Package Dimensions



单位: mm

Dimensions In Millimeters				Dimensions in Inches			
Symbol	Value	Symbol	Value	Symbol	Value	Symbol	Value
A	0.55	B	0.55	A1	0.55	B1	0.95
C	0.45	C1	0.55	C	0.45	C1	0.55
a	0.25	e	0.25	a	0.25	e	0.25
e1	0.43	e1	0.43	e1	0.43	e1	0.43
1	0.25	2	0.25	1	0.25	2	0.25
3	0.25	3	0.25	3	0.25	3	0.25

/ Marking Instructions



BR

TIP41C

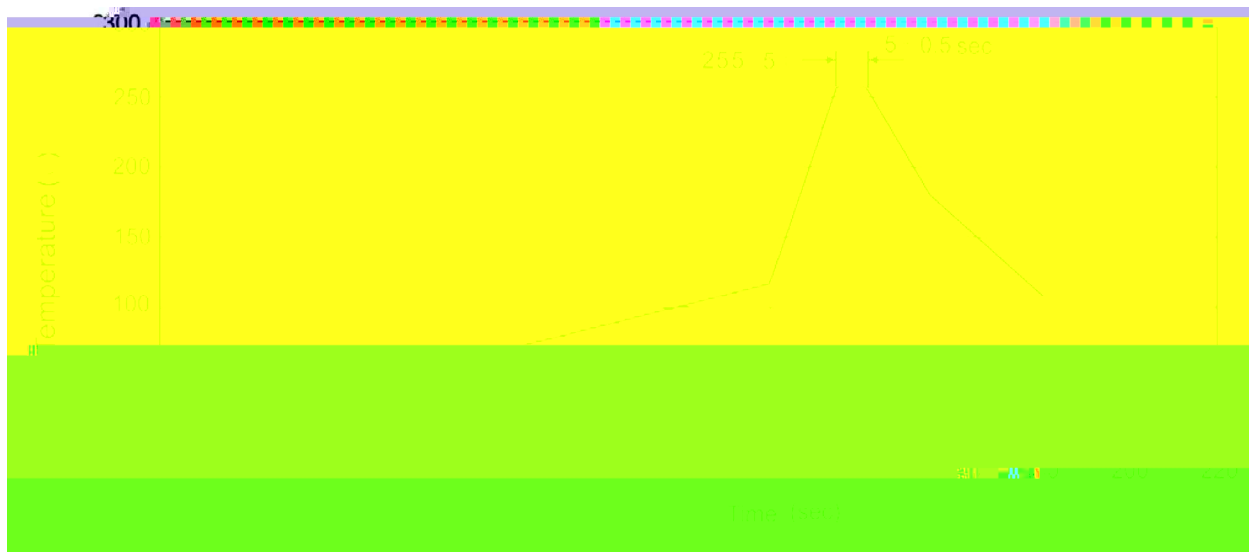
Note:

BR: Company Code

TIP41C: 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 封装形式	Units 包装数量					Dimension 包装尺寸 (unit: mm ³)		
	Units/Bag 只/袋	Bags/Inner Box 袋/盒	Units/Inner Box 只/盒	Inner Boxes/Outer Box 盒/箱	Units/Outer Box 只/箱	Bag 袋	Inner Box 盒	Outer Box 箱
TO-251	1,000	10	10,000	5	50,000	135×190	237×172×102	560×245×195

/ TUBE

Package Type 封装形式	Units 包装数量					Dimension 包装尺寸 (unit: mm ³)		
	Units/Tube 只/套管	Tubes/Inner Box 套管/盒	Units/Inner Box 只/盒	Inner Boxes/Outer Box 盒/箱	Units/Outer Box 只/箱	Tube 套管	Inner Box 盒	Outer Box 箱
TO-251/252	75	48	3,600	5	18,000	526×20.5×5.25	555×164×50	575×290×180

/ Notices