

/ Descriptions

TO-252 NPN Silicon NPN transistor in a TO-252 Plastic Package.

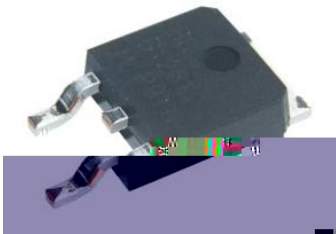
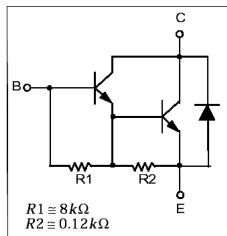
/ Features

TIP127D
Complement to TIP127D.

/ Applications

Medium power linear switching applications.

/ Equivalent Circuit



PIN1 Base PIN 2,4 Collector PIN 3 Emitter

/ h_{FE} Classifications & Marking

。 See Marking Instructions.

/ 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}	5.0	V
Collector Current - Continuous	I_C	5.0	A
Collector Power Dissipation	$P_C(T_C=25)$	40	W
Junction Temperature	T_j	150	
Storage Temperature Range	T_{stg}	-55~150	

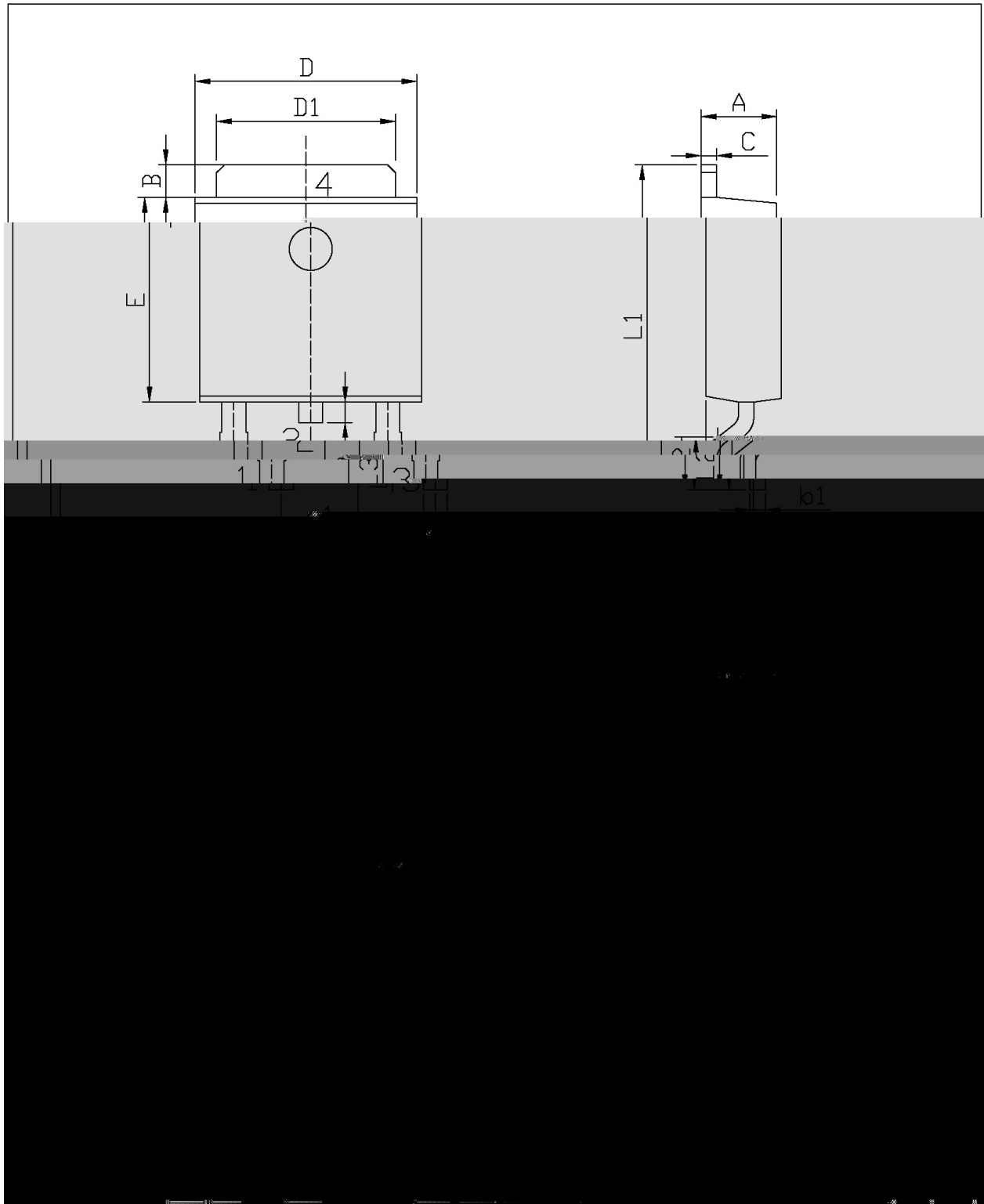
/ Electrical Characteristics(Ta=25)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector to Emitter Breakdown Voltage	V_{CEO}	$I_C=100mA$ $I_B=0$	100			V
Collector Cut-Off Current	I_{CEO}	$V_{CE}=50V$ $I_B=0$			0.5	mA
Collector Cut-Off Current	I_{CBO}	$V_{CB}=100V$ $I_E=0$			0.2	mA
Emitter Cut-Off Current	I_{EBO}	$V_{EB}=5.0V$ $I_C=0$			2.0	mA
DC Current Gain	$h_{FE(1)}$	$V_{CE}=3.0V$ $I_C=0.5A$	1000			
	$h_{FE(2)}$	$V_{CE}=3.0V$ $I_C=3.0A$	1000			
Collector to Emitter Saturation Voltage	$V_{CE(sat) (1)}$	$I_C=3.0A$ $I_B=12mA$			2.0	V
	$V_{CE(sat) (2)}$	$I_C=5.0A$ $I_B=20mA$			4.0	V
Base to Emitter Voltage	V_{BE}	$I_C=3.0A$ $V_{CE}=3.0V$			2.5	V
Collector output capacitance	C_{ob}	$V_{CB}=10V$ $I_E=0$ $f=0.1MHz$			200	pF

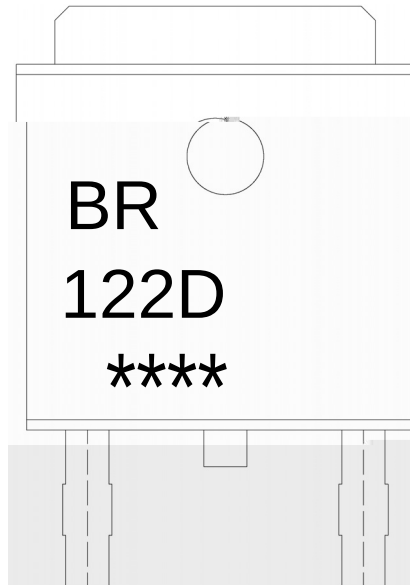
/ **Electrical Characteristic Curve**



/ Package Dimensions



/ Marking Instructions



BR

122D

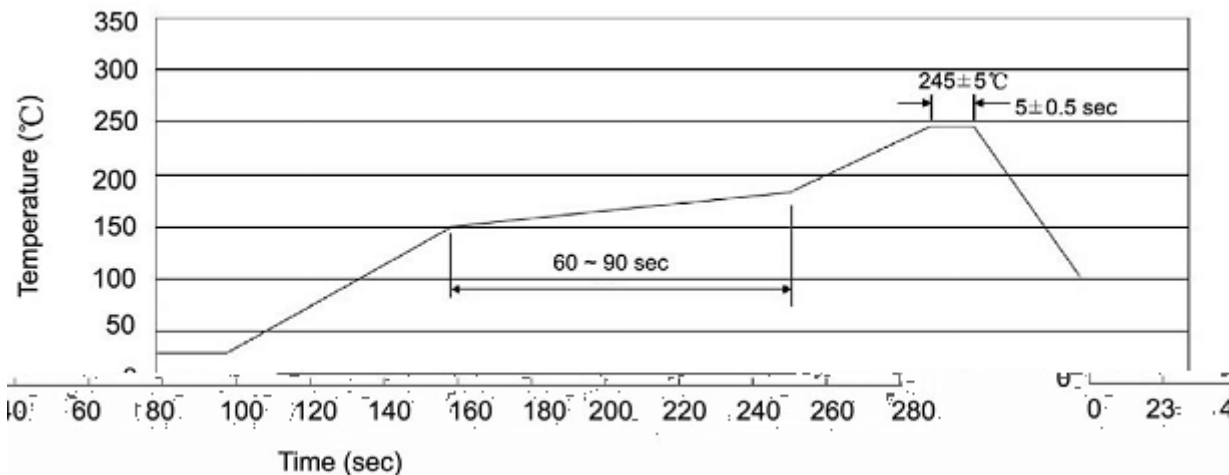
Note:

BR: Company Code

122D: Product Type.

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

() / **Temperature Profile for IR Reflow Soldering(Pb-Free)**



Note:

- | | | | | | |
|---|-------|-----|-----------|---|--------------------------------------|
| 1 | 25 | 150 | 60 | 90sec; | 1.Preheating:25~150 , Time:60~90sec. |
| 2 | 245±5 | | 5±0.5sec; | 2.Peak Temp.:245±5 , Duration:5±0.5sec. | |
| 3 | | 2 | 10 | /sec. | 3. Cooling Speed: 2~10 /sec. |

/ **Resistance to Soldering Heat Test Conditions**

260±5 10±1 sec. Temp.:260±5 Time:10±1 sec

/ **Packaging SPEC.**

/ REEL

Package Type 封装形式	Units 包装数量					Dimension 包装尺寸 (unit: mm ³)		
	Units/Reel 只/卷盘	Reels/Inner Box 卷盘/盒	Units/Inner Box 只/盒	Inner Boxes/Outer Box 盒/箱	Units/Outer Box 只/箱	Reel	Inner Box 盒	Outer Box 箱
TO-252	2,500	2	5,000	5	25,000	13" ×16	360×360×50	385×257×392

/ 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**