

/ Descriptions

TO-126

NPN

Silicon NPN transistor in a TO-126 Plastic Package.

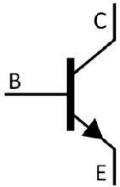
/ Features

BD238

Complementary pair with BD238.

/ Applications

Medium power linear and switching applications.

/ Equivalent Circuit

PIN1 Emitter

PIN 2 Collector

PIN 3 Base

/ h_{FE} Classifications & Marking

See Marking Instructions.

/ Absolute Maximum Ratings($T_a=25^\circ\text{C}$)

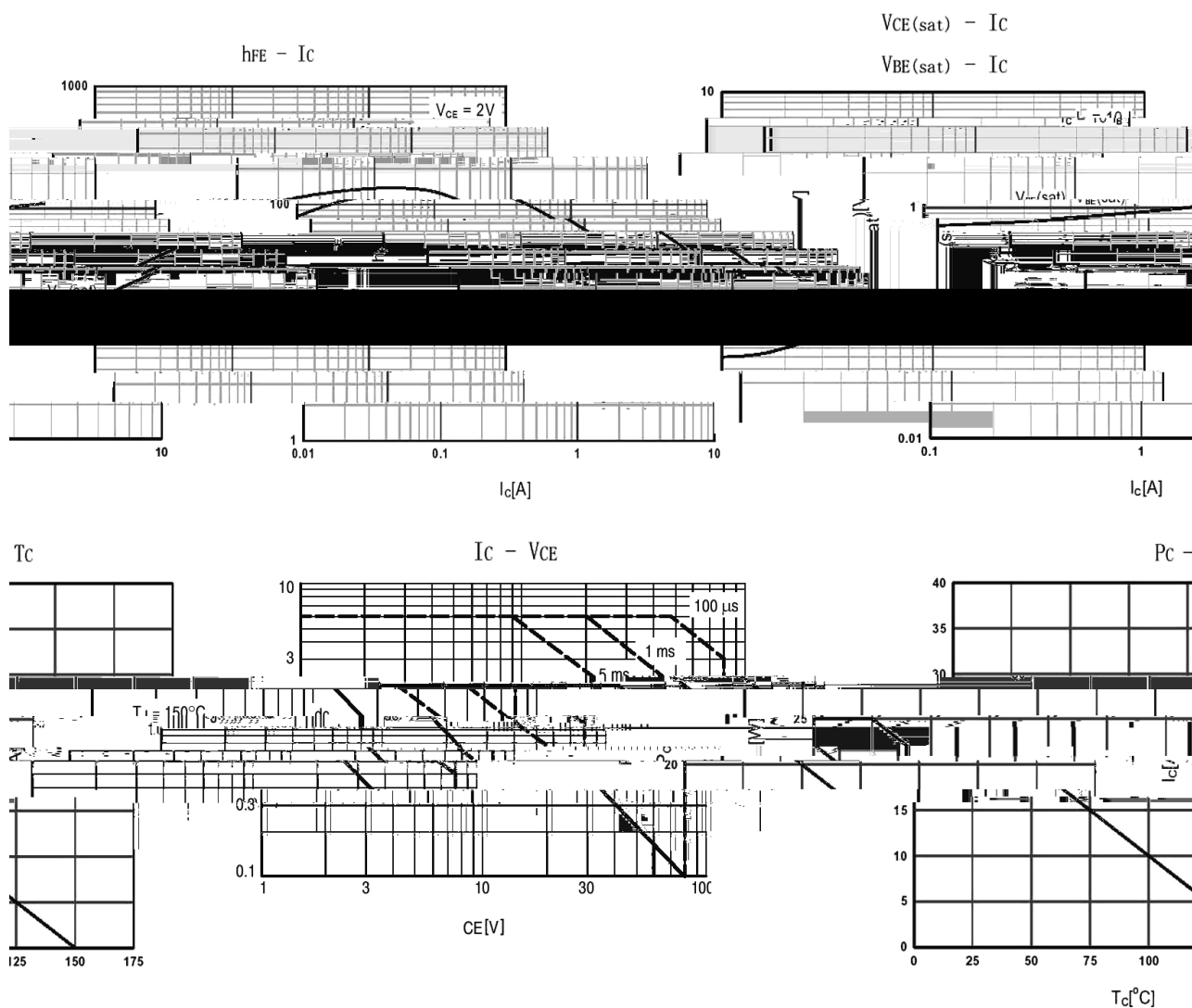
Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	100	V
Collector to Emitter Voltage	V_{CEO}	80	V
Emitter to Base Voltage	V_{EBO}	5.0	V
Collector Current - Continuous	I_C	2.0	A
Peak Collector Current	I_{CM}	6.0	A
Collector Power Dissipation	$P_C(T_c=25^\circ\text{C})$	25	W
Junction Temperature	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 to Emitter Breakdown Voltage*	$*V_{CEO}$	$I_C=100\text{mA}$ $I_B=0$	80			V
Collector Cut-Off Current	I_{CBO}	$V_{CB}=80\text{V}$ $I_E=0$			0.1	mA
Emitter Cut-Off Current	I_{EBO}	$V_{EB}=5.0\text{V}$ $I_C=0$			1.0	mA
DC Current Gain	$*h_{FE(1)}$	$V_{CE}=2.0\text{V}$ $I_C=150\text{mA}$	40			
	$*h_{FE(2)}$	$V_{CE}=2.0\text{V}$ $I_C=1.0\text{A}$	25			
Collector to Emitter Saturation Voltage*	$*V_{CE(sat)}$	$I_C=1.0\text{A}$ $I_B=0.1\text{A}$			0.6	V
Base to Emitter On Voltage*	$*V_{BE}$	$V_{CE}=2.0\text{V}$ $I_C=1.0\text{A}$			1.3	V
Transition Frequency	f_T	$V_{CE}=10\text{V}$ $I_C=250\text{mA}$	3.0			MHz

* Pulse test: pulse width =300 μs ; duty cycle 1.5%.* =300 μs 1.5%

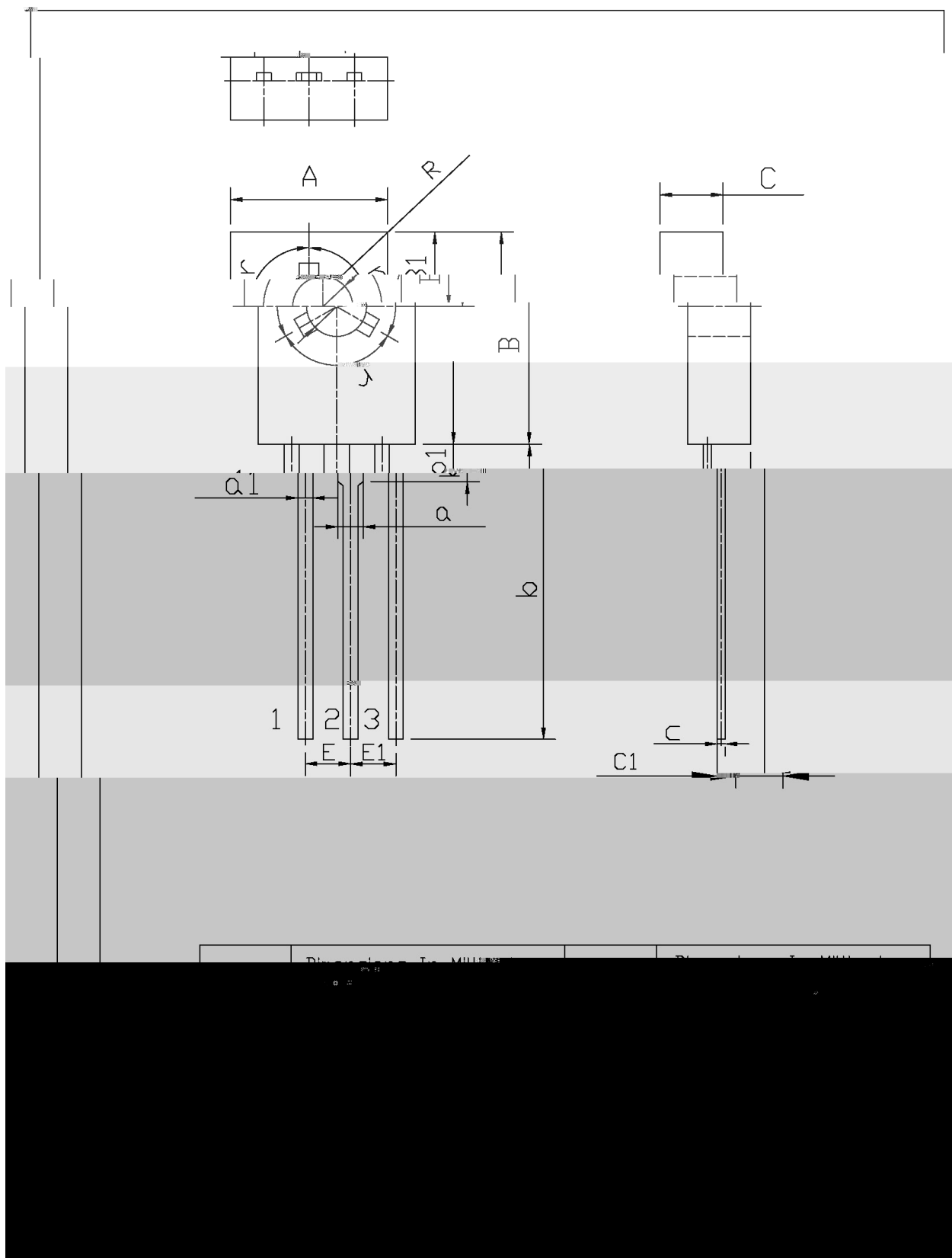
/ Electrical Characteristic Curve



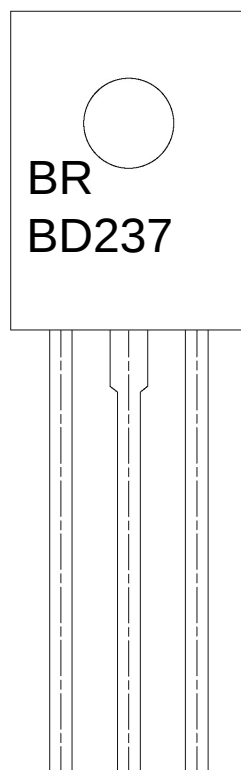
/ Package Dimensions

T□-126

单位: mm



/ Marking Instructions



BR

BD237

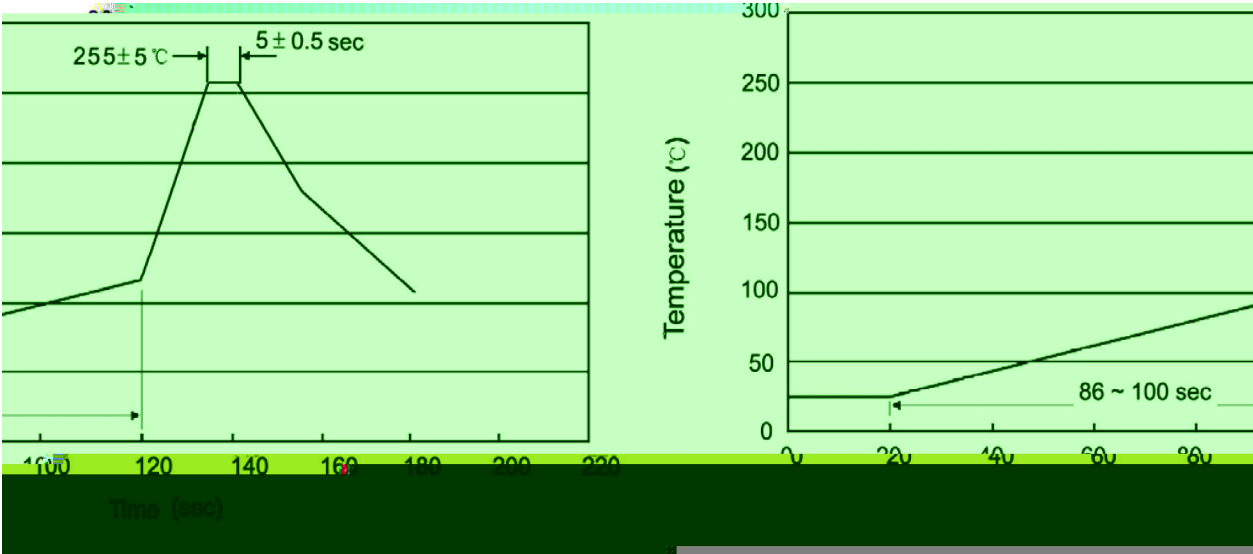
Note:

BR: Company Code

BD237: Product Type.

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

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



- | | | | | |
|---|-------|-----|-----|-----------|
| 1 | 25 | 150 | 60 | 90sec; |
| 2 | 255±5 | | | 5±0.5sec; |
| 3 | | | 1/2 | |

Note:

1.Preheating:25~150 , Time:60~90sec.

2.Peak Temp.:255±5 , Duration:5±0.5sec.