

/ Descriptions

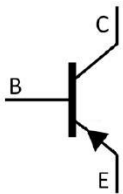
Silicon PNP transistor in a TO-18 Plastic Package.

/ Features

Complement to BD137.

/ Applications

Medium power linear and switching applications.

/ Equivalent Circuit**/ Pinning**

PIN1 Emitter PIN 2 Collector PIN 3 Base

/ h_{FE} Classifications & Marking

h_{FE} Classifications Symbol	6	10	16
h_{FE} Range	40 100	63 160	100 250

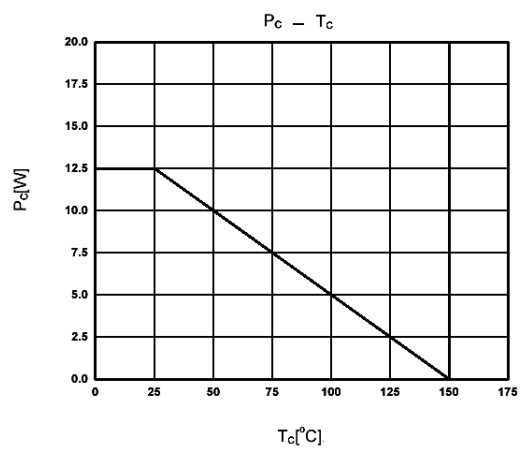
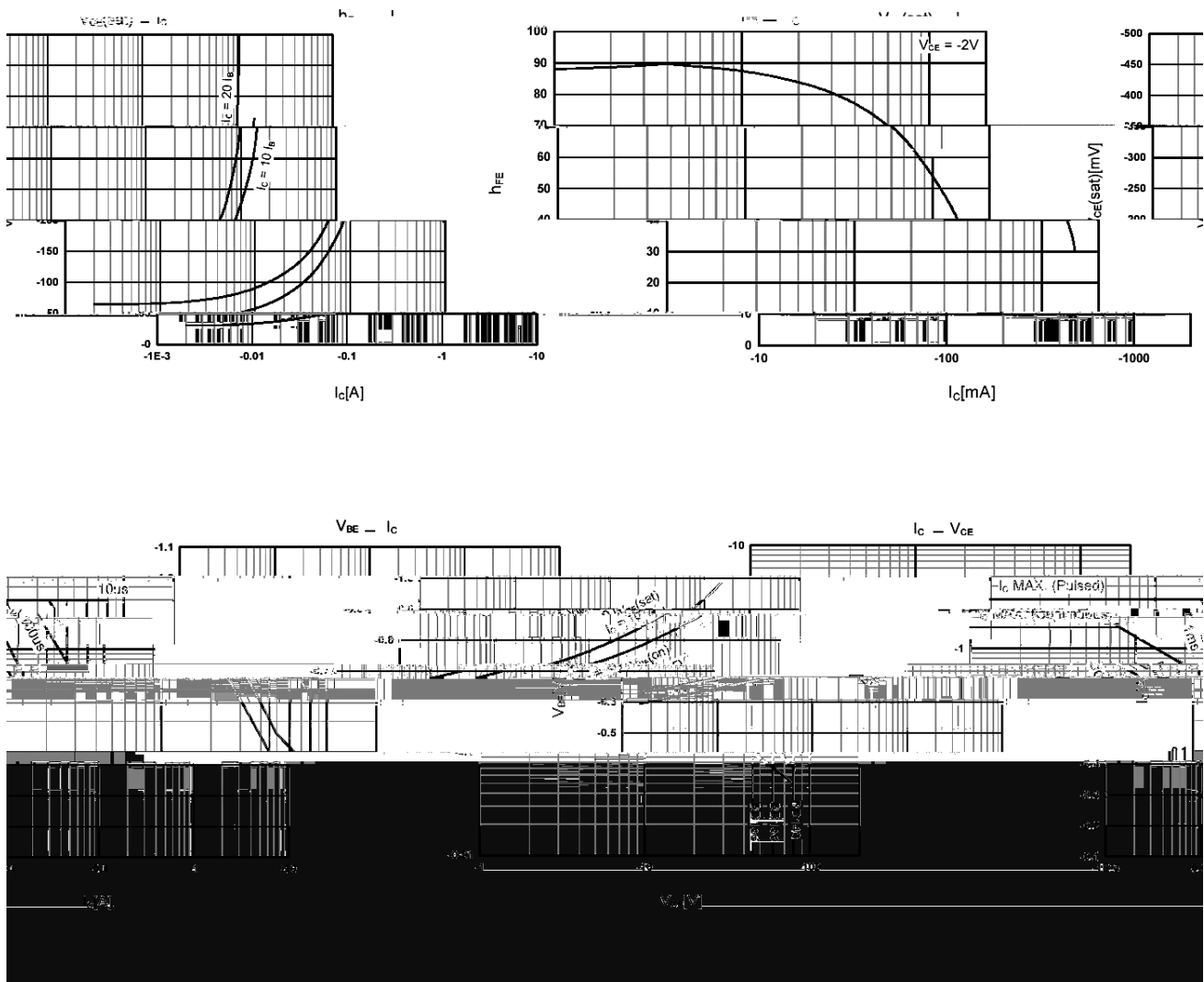
/ Absolute Maximum Ratings($T_a=25^\circ\text{C}$)

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	-60	V
Collector to Emitter Voltage	V_{CEO}	-60	V
Emitter to Base Voltage	V_{EBO}	-5.0	V
Collector Current - Continuous	I_C	-1.5	A
Collector Current – Continuous(Pulse)	I_{CP}	-3.0	A
Base Current - Continuous	I_B	-0.5	A
Collector Power Dissipation	P_C	1.25	W
Collector Power Dissipation	$P_C(T_c=25^\circ\text{C})$	12.5	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}	$I_C=-30\text{mA}$ $I_B=0$	-60			V
Collector Cut-Off Current	I_{CBO}	$V_{CB}=-30\text{V}$ $I_E=0$			-0.1	μA
Emitter Cut-Off Current	I_{EBO}	$V_{EB}=-5.0\text{V}$ $I_C=0$			-10	μA
DC Current Gain	$h_{FE(1)}$	$V_{CE}=-2.0\text{V}$ $I_C=-150\text{mA}$	40		250	
	$h_{FE(2)}$	$V_{CE}=-2.0\text{V}$ $I_C=-500\text{mA}$	25			
	$h_{FE(3)}$	$V_{CE}=-2.0\text{V}$ $I_C=-5.0\text{mA}$	25			
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=-500\text{mA}$ $I_B=-50\text{mA}$			-0.5	V
Base to Emitter On Voltage	$V_{BE(on)}$	$V_{CE}=-2.0\text{V}$ $I_C=-500\text{mA}$			-1.0	V

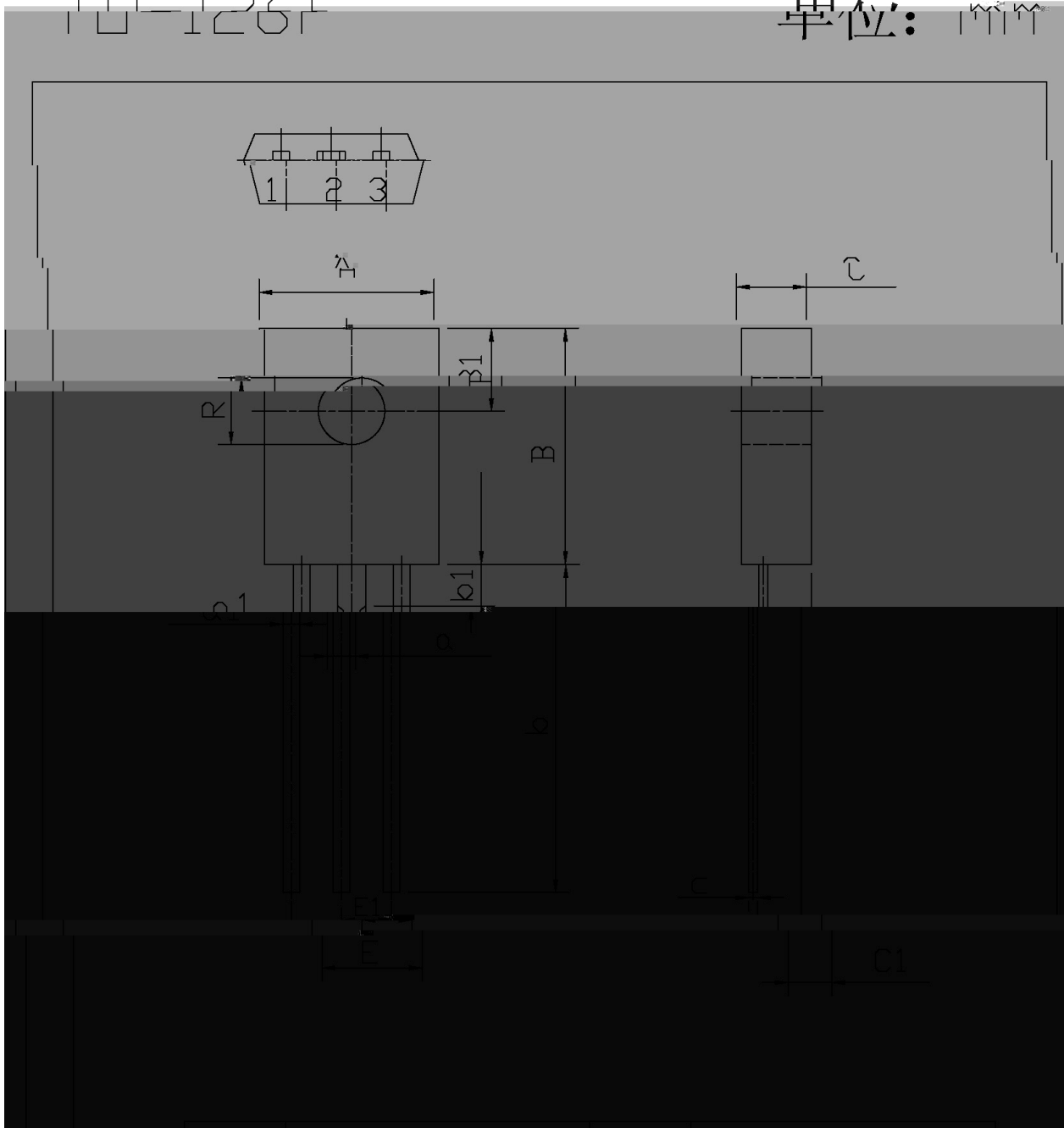
/ Electrical Characteristic Curve



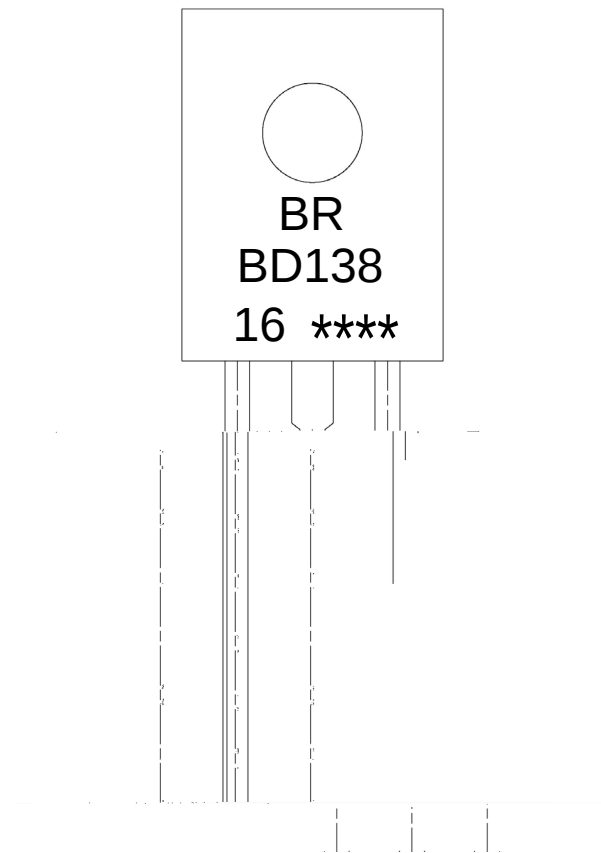
/ Package Dimensions

TQ-126T

单位: mm



Dimension in Millimeters			Dimension in Millimeters		
Symbol	Min	Max	Symbol	Min	Max
A	7.8	8.2	a1	0.65	0.85
B	10.0	11.2	E	4.4	4.8
B1	3.8	4.2	C	3.1	3.3
R	2.95	3.15	C1	1.9	2.1
b	14	16	c	0.3	0.6
b1	1.9		∞	1.27	
E1	2.1	2.5			

/ Marking Instructions

Note:

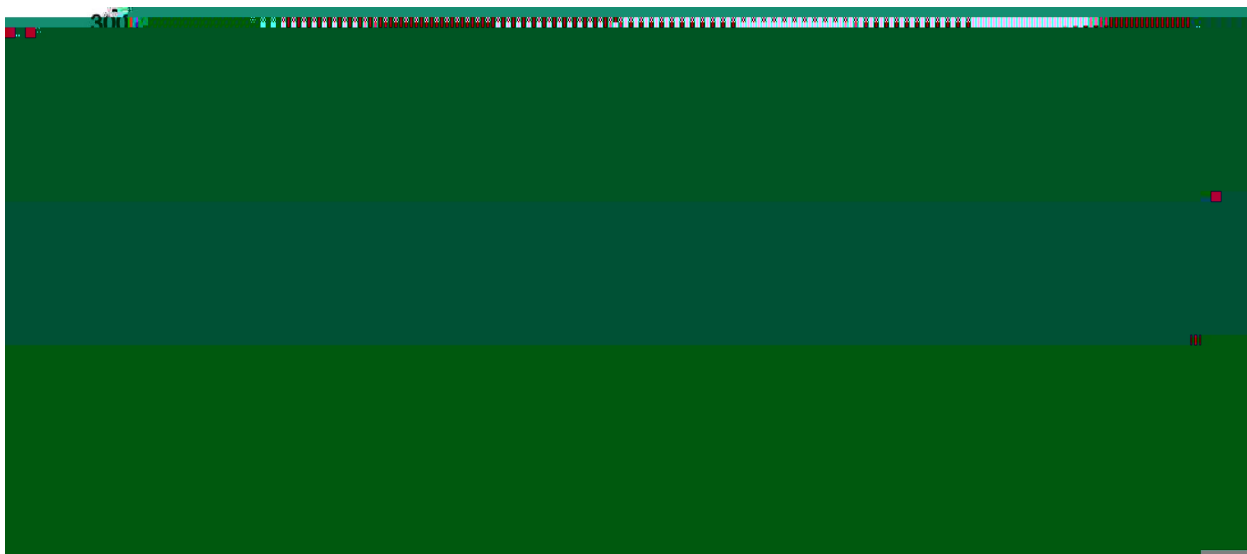
BR: Company Code

BD138: Product Type.

16: 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; | 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				Dimension				(unit mm ³)
	Units/Tube	Tubes/Inner Box	Units/Inner Box	Inner Boxes/Outer Boxes	Length	Width	Height	Volume	
	/	/	/	/	313.74	289.46	4.9	3617.74	6.744