/ Descriptions

Silicon PNP transistor in a TO-126F Plastic Package.

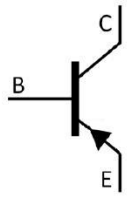
/ Features

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

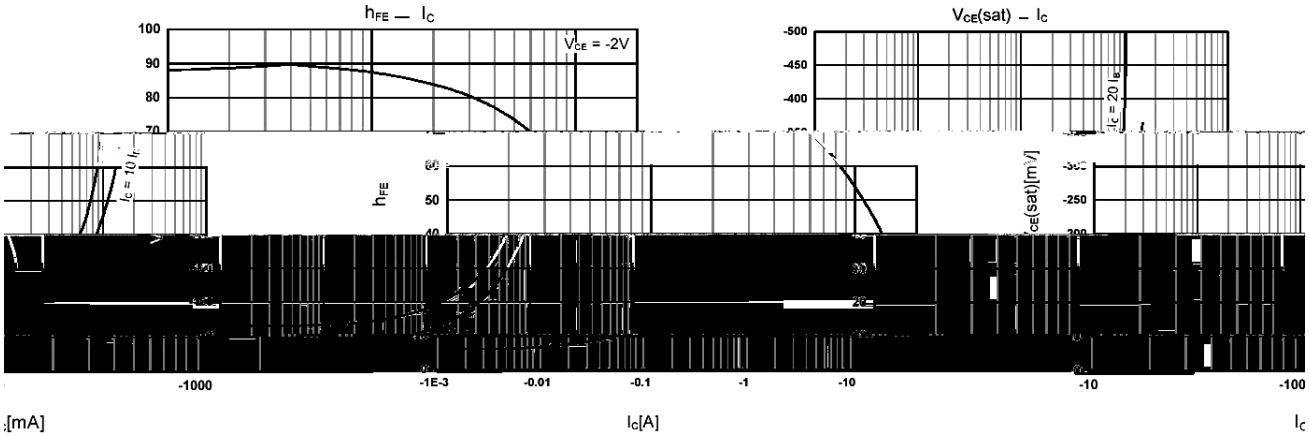
/ Absolute Maximum Ratings(Ta=25)

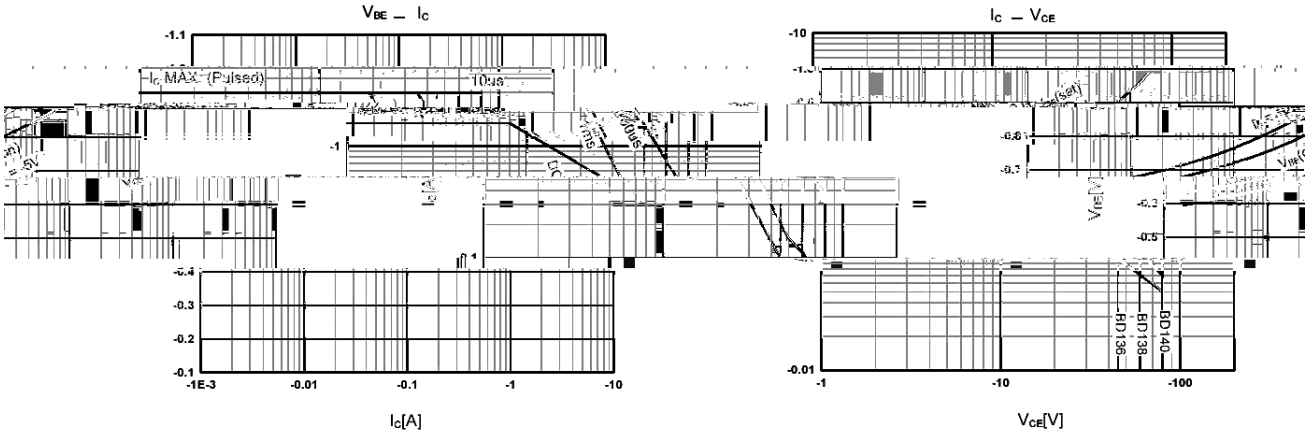
Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	-60	V
Collector to Emitter Voltage	V_{CEO}	-60	V
Emitter to Base Voltage	V_{EBO}	-5.0	V
Collector Current - Continuous	I_C	-1.5	A
Collector Current – Continuous(Pulse)	I_{CP}	-3.0	A
Base Current - Continuous	I_B	-0.5	A
Collector Power Dissipation	P_C	1.25	W
Collector Power Dissipation	P_C(Tc=25℃)	12.5	W
Junction Temperature	T_j	150	℃
Storage Temperature Range	T_{stg}	-55 150	℃

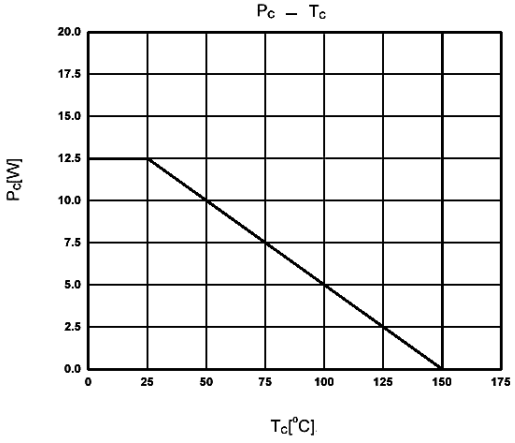
/ Electrical Characteristics(Ta=25)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector to Emitter Breakdown Voltage	V_{CEO}	I_C=-30mA I_B=0	-60			V
Collector Cut-Off Current	I_{CBO}	V_{CB}=-30V I_E=0			-0.1	μA
Emitter Cut-Off Current	I_{EBO}	V_{EB}=-5.0V I_C=0			-10	μA
DC Current Gain	$h_{FE(1)}$	V_{CE}=-2.0V I_C=-150mA	40		250	
	$h_{FE(2)}$	V_{CE}=-2.0V I_C=-500mA	25			
	$h_{FE(3)}$	V_{CE}=-2.0V I_C=-5.0mA	25			
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	I_C=-500mA I_B=-50mA			-0.5	V
Base to Emitter On Voltage	$V_{BE(on)}$	V_{CE}=-2.0V I_C=-500mA			-1.0	V

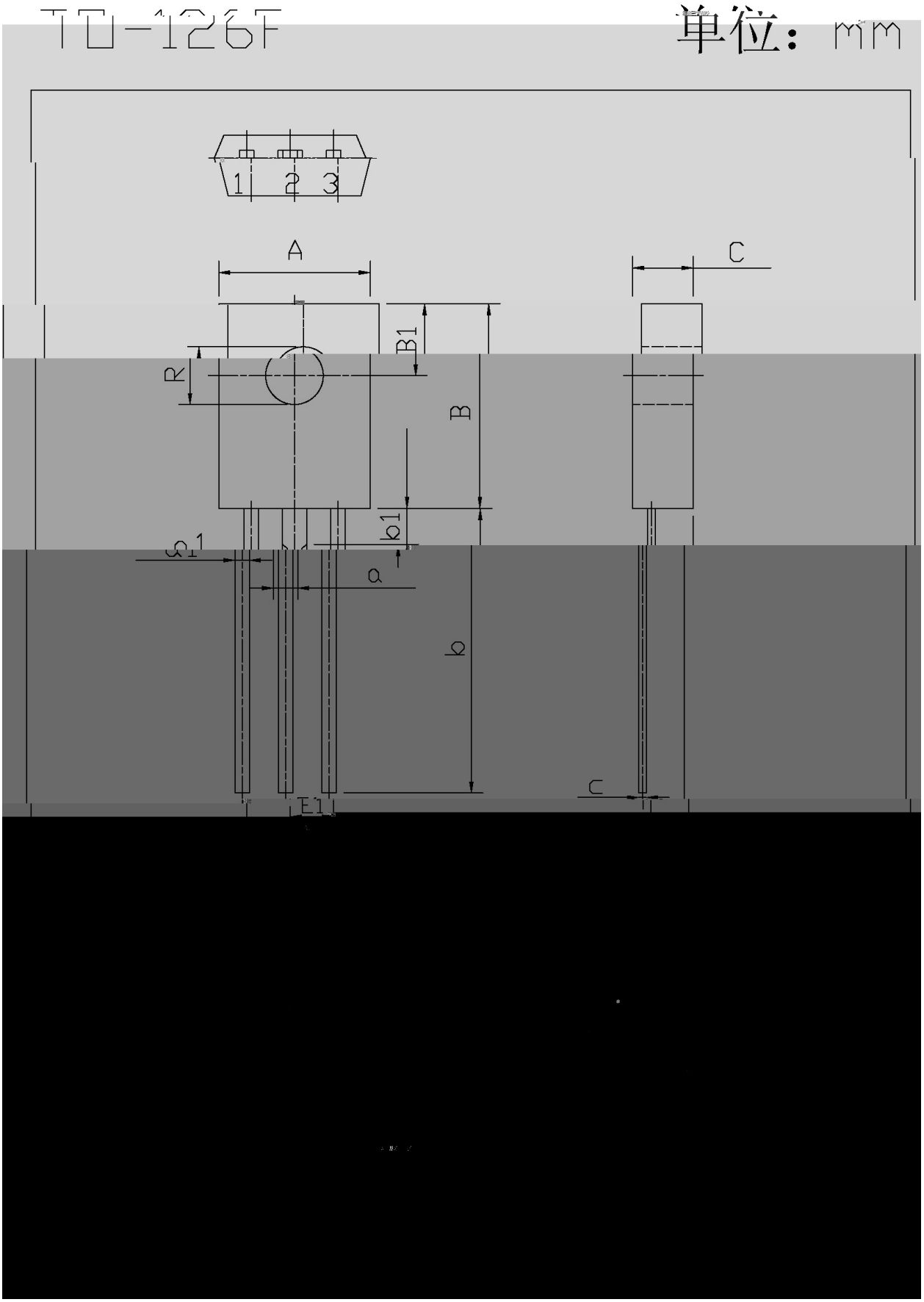
/ Electrical Characteristic Curve



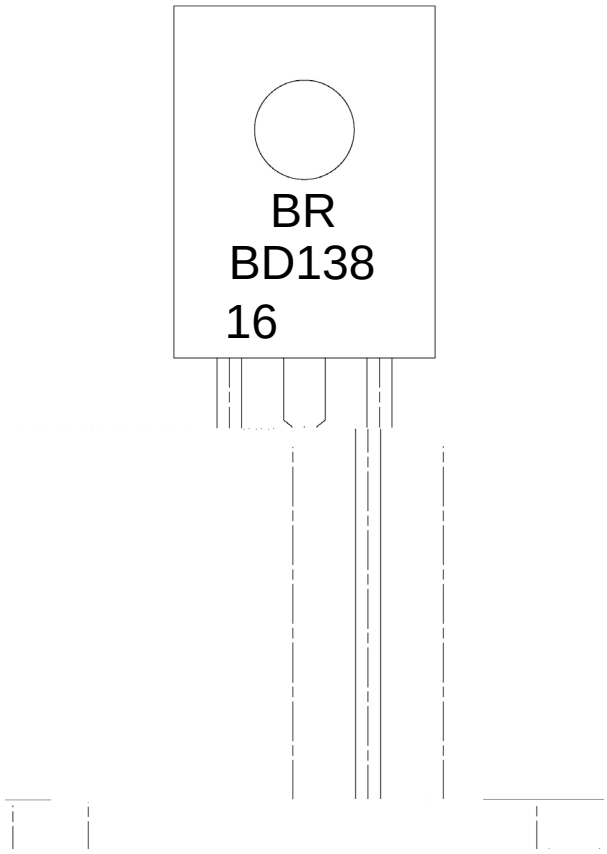




/ Package Dimensions



/ 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)