

/ Descriptions

TO-126F

NPN

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

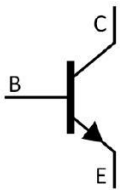
/ Features

BD440

Complementary pair with BD440.

/ Applications

Medium power linear and switching applications.

/ Equivalent Circuit**/ Pinning**

PIN1 Emitter

PIN 2 Collector

PIN 3 Base

/ h_{FE} Classifications & Marking

See Marking Instructions

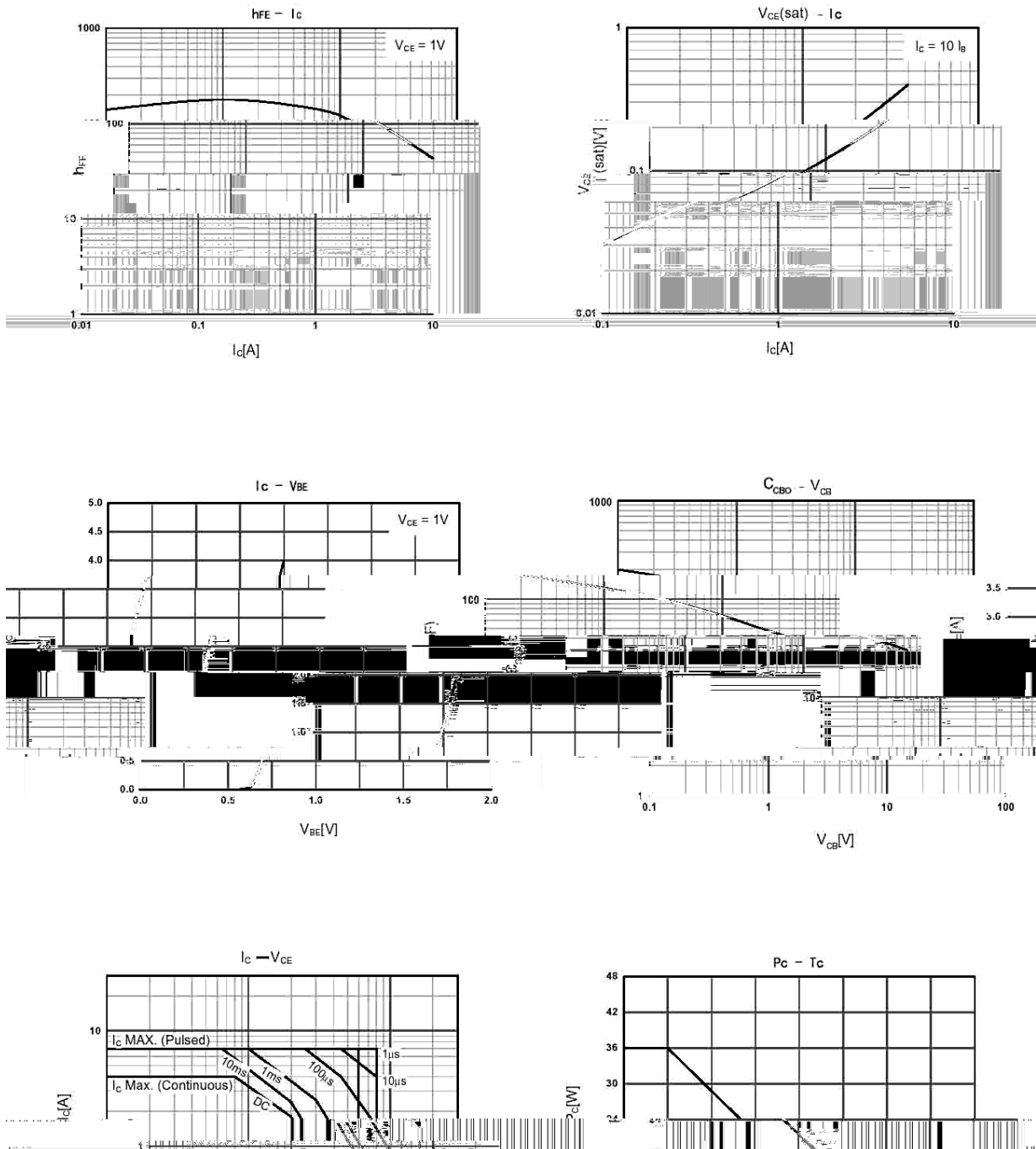
/ Absolute Maximum Ratings(Ta=25)

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	60	V
Collector to Emitter Voltage	V_{CES}	60	V
Collector to Emitter Voltage	V_{CEO}	60	V
Emitter to Base Voltage	V_{EBO}	5.0	V
Collector Current - Continuous	I_C	4.0	A
Peak Collector Current	I_{CP}	7.0	A
Base Current - Continuous	I_B	1.0	A
Collector Power Dissipation	$P_C(T_c=25)$	36	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}	$I_C=100mA$ $I_B=0$	60			V
Collector Cut-Off Current	I_{CBO}	$V_{CB}=60V$ $I_E=0$			100	μA
Collector Cut-Off Current	I_{CES}	$V_{CE}=60V$ $V_{BE}=0$			100	μA
Emitter Cut-Off Current	I_{EBO}	$V_{EB}=5.0V$ $I_C=0$			1.0	mA
DC Current Gain	$h_{FE(1)}$	$V_{CE}=1.0V$ $I_C=500mA$	40	140	300	
	$h_{FE(2)}$	$V_{CE}=5.0V$ $I_C=10mA$	20	130		
	$h_{FE(3)}$	$V_{CE}=1.0V$ $I_C=2.0A$	25			
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=2.0A$ $I_B=0.2A$			0.8	V
Base to Emitter Voltage	$V_{BE(1)}$	$V_{CE}=5.0V$ $I_C=10mA$		0.58		V
	$V_{BE(2)}$	$V_{CE}=1.0V$ $I_C=2.0A$			1.5	V
Transition Frequency	f_T	$V_{CE}=1.0V$ $I_C=250mA$	3.0			MHz

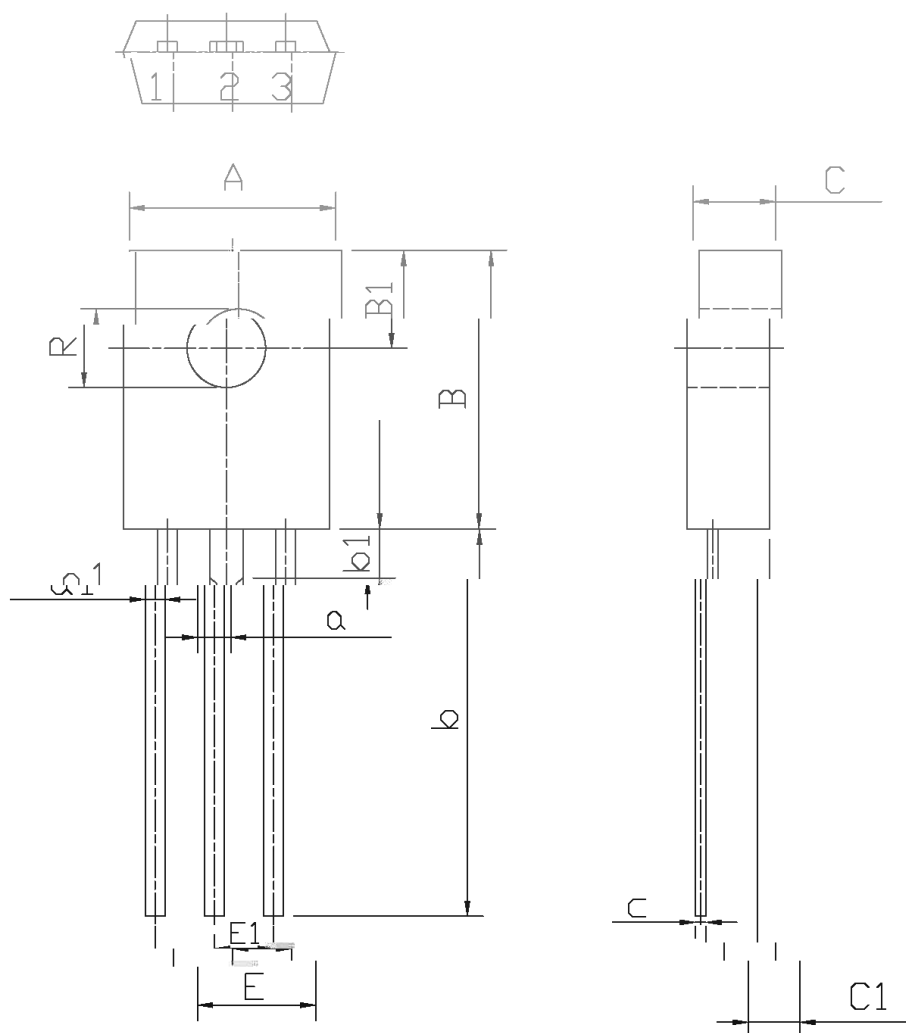
/ Electrical Characteristic Curve



/ Package Dimensions

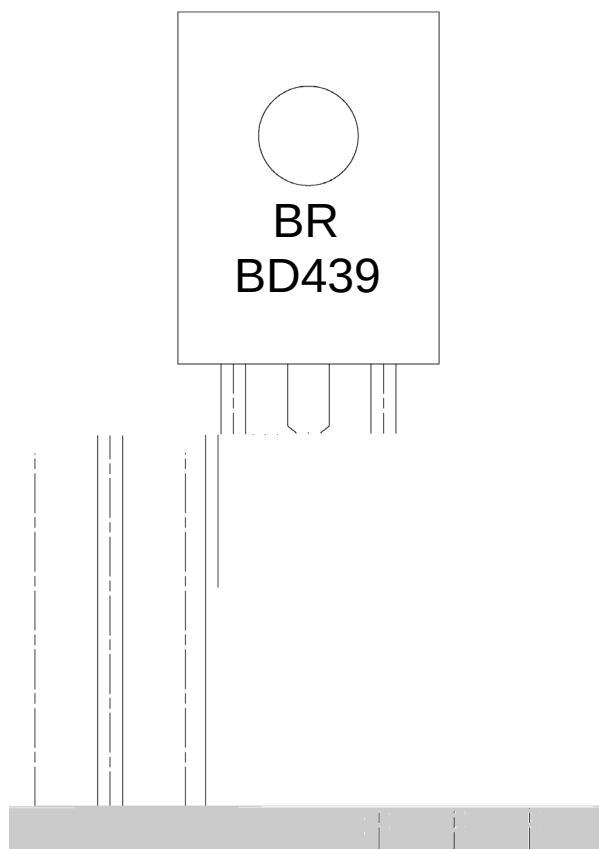
TU-126T

单位: mm



Symbol	Dimension in Millimeters		Symbol	Dimension in Millimeters	
	Min	Max		Min	Max
A	7.8	8.2	a1	0.55	0.85
B	10.8	11.2	E	4.4	4.8
B1	3.8	4.2	C	3.1	3.3
R	2.25	3.15	C1	1.9	2.1
b	14	16	c	0.3	0.6
b1	1.9		a	1.27	
E1	2.1	2.5			

/ Marking Instructions



BR

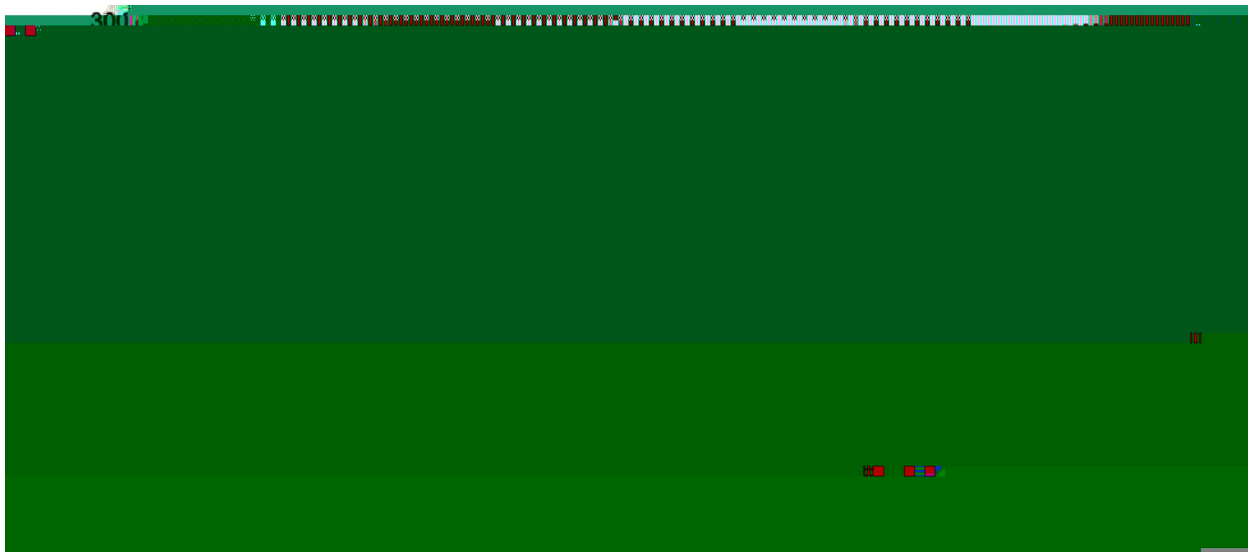
BD439

Note:

BR: Company Code

BD439: 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)		
	只 套管	套管 盒	只 盒	盒 箱	只 箱	套管	盒	箱

/ TUBE

Package Type 封装形式	Units 包装数量					Dimension 包装尺寸 (unit: mm ³)		
	只 套管	套管 盒	只 盒	盒 箱	只 箱	套管	盒	箱

/ Notices