

**/ Descriptions**

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

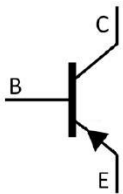
**/ Features**

Low saturation voltage, high DC current gain.

**/ Applications**

Audio frequency power amplifier and switching applications.

**/ Equivalent Circuit**



**/ Pinning**



PIN1   Emitter          PIN 2   Collector          PIN 3   Base

**/  $h_{FE}$  Classifications & Marking**

See Marking Instructions.

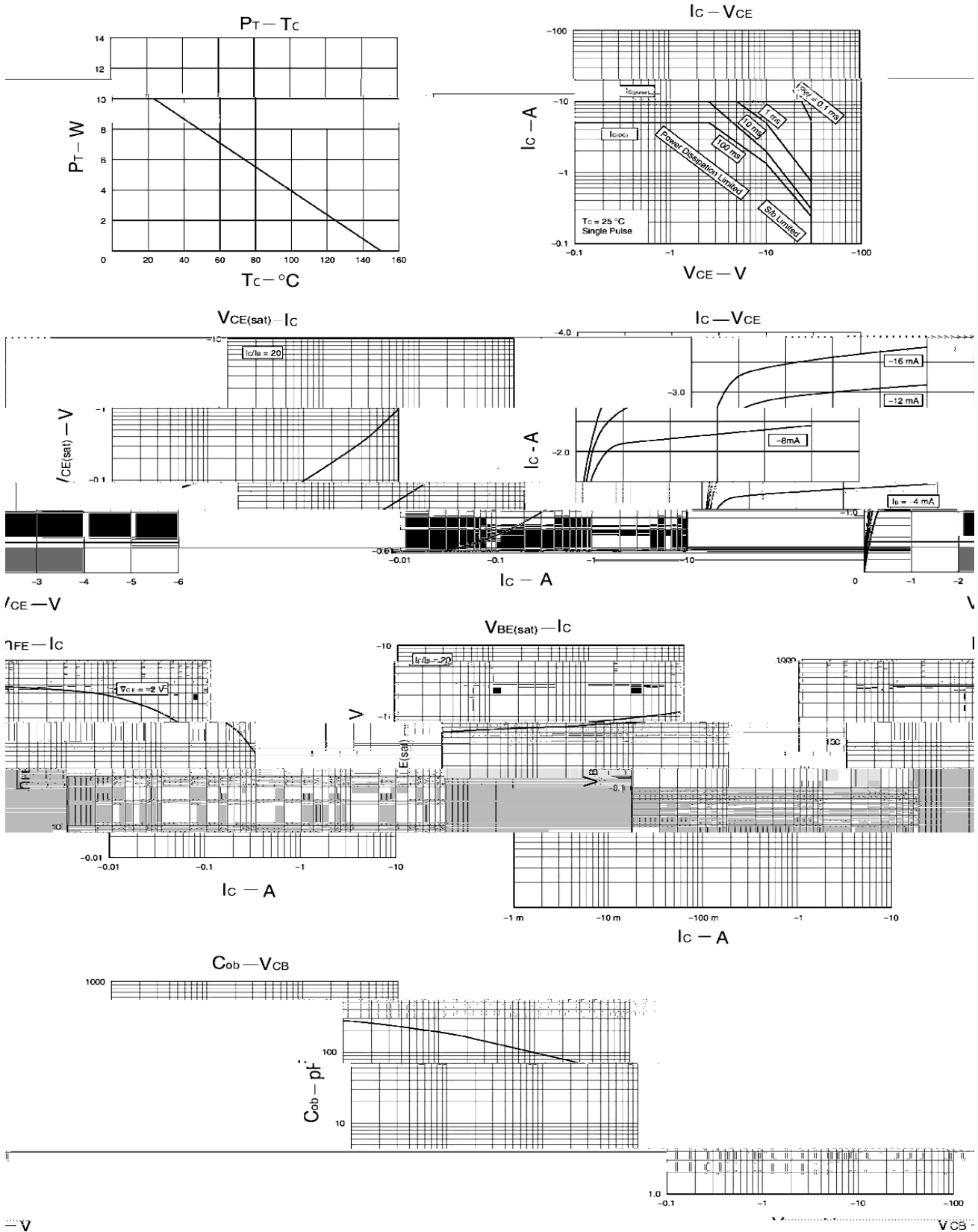
**/ Absolute Maximum Ratings(Ta=25 )**

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	$V_{CBO}$	-30	V
Collector to Emitter Voltage	$V_{CEO}$	-30	V
Emitter to Base Voltage	$V_{EBO}$	-6.0	V
Collector Current - Continuous	$I_C$	-5.0	A
Collector Current – Continuous(Pulse)	$I_{CP}$	-10	A
Base Current - Continuous	$I_B$	-2.0	A
Collector Power Dissipation	$P_C$	1.0	W
Collector Power Dissipation	$P_C(T_c=25 )$	10	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 Cut-Off Current	$I_{CBO}$	$V_{CB}=-30V \quad I_E=0$			-0.1	$\mu A$
Emitter Cut-Off Current	$I_{EBO}$	$V_{EB}=-6.0V \quad I_C=0$			-0.1	$\mu A$
DC Current Gain	$h_{FE(1)}$	$V_{CE}=-2.0V \quad I_C=-1.0A$	150		600	
	$h_{FE(2)}$	$V_{CE}=-2.0V \quad I_C=-4.0A$	50			
Collector to Emitter Saturation Voltage	$V_{CE(sat) (1)}$	$I_C=-1.0A \quad I_B=-50mA$		-0.09	-0.15	V
	$V_{CE(sat) (2)}$	$I_C=-2.0A \quad I_B=-0.1A$		-0.17	-0.25	V
	$V_{CE(sat) (3)}$	$I_C=-4.0A \quad I_B=-0.2A$		-0.32	-0.50	V
Base to Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=-1.0A \quad I_B=-0.1A$		-0.87	-1.50	V
Transition Frequency	$f_T$	$V_{CE}=-10V \quad I_C=-50mA$		95		MHz
Reverse Transfer Capacitance	$C_{ob}$	$V_{CB}=-10V \quad f=1.0MHz$		100		pF

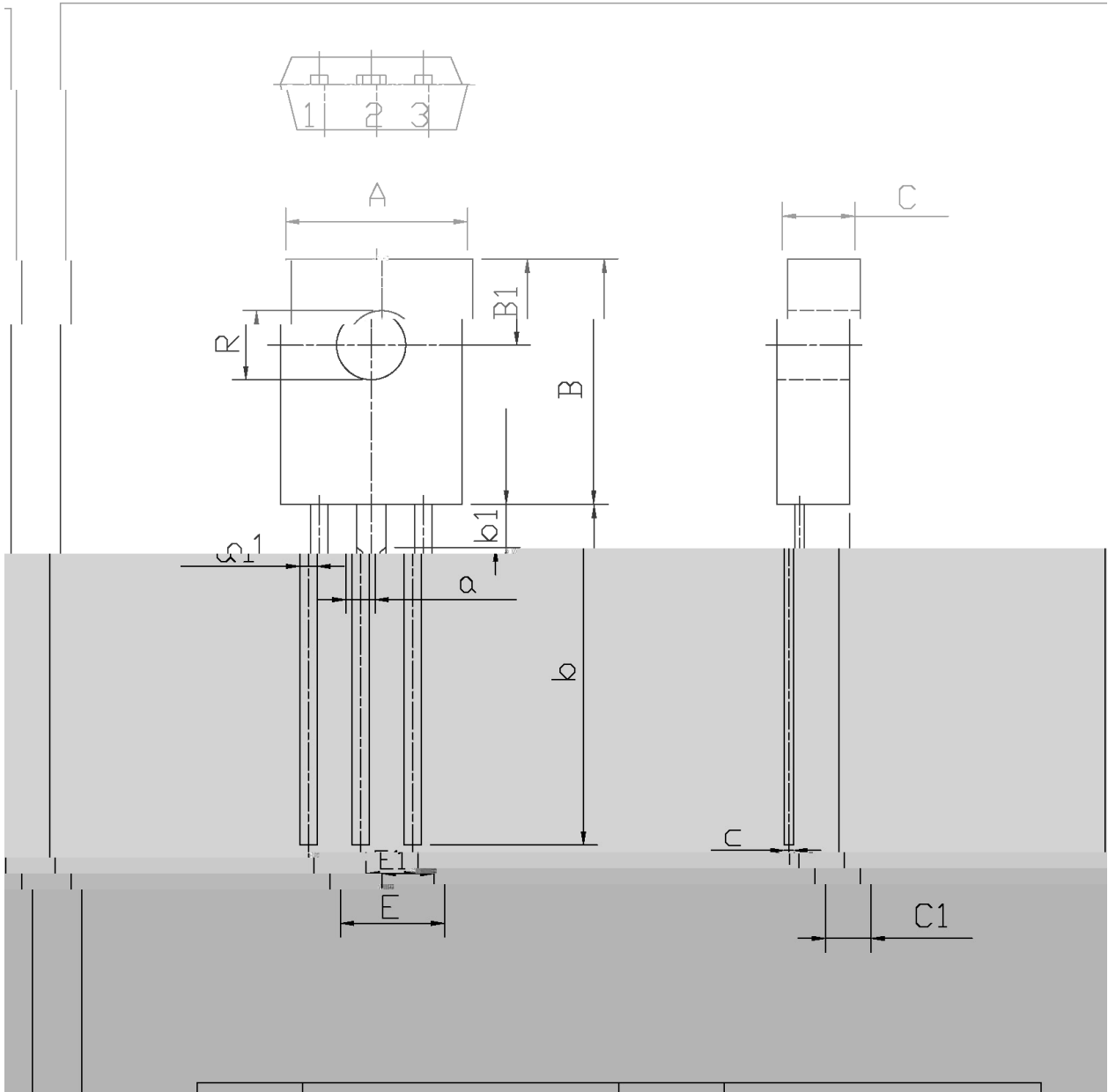
/ Electrical Characteristic Curve



/ Package Dimensions

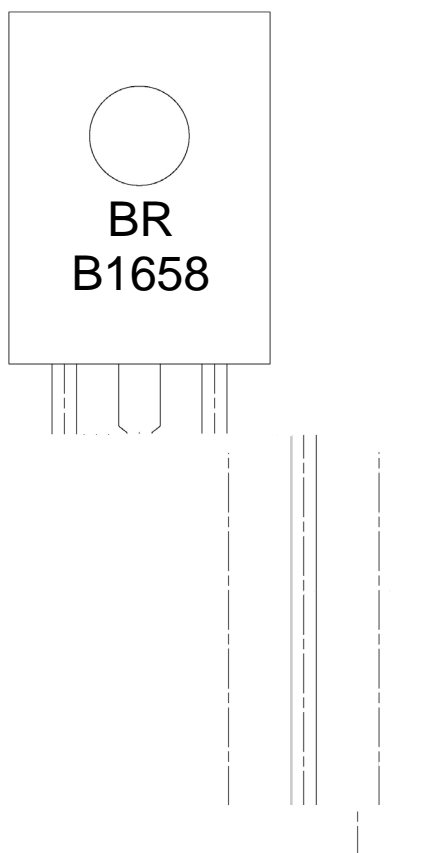
2SB1658

单位: mm



Symbol	Dimensions in Millimeters		Symbol	Dimensions in Millimeters	
	Min	Max		Min	Max
A	7.8	8.2	a1	0.55	0.85
B	10.0	11.2	E1	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		a	1.27	
E1	2.1	2.5			

**/ Marking Instructions**



BR

B1658

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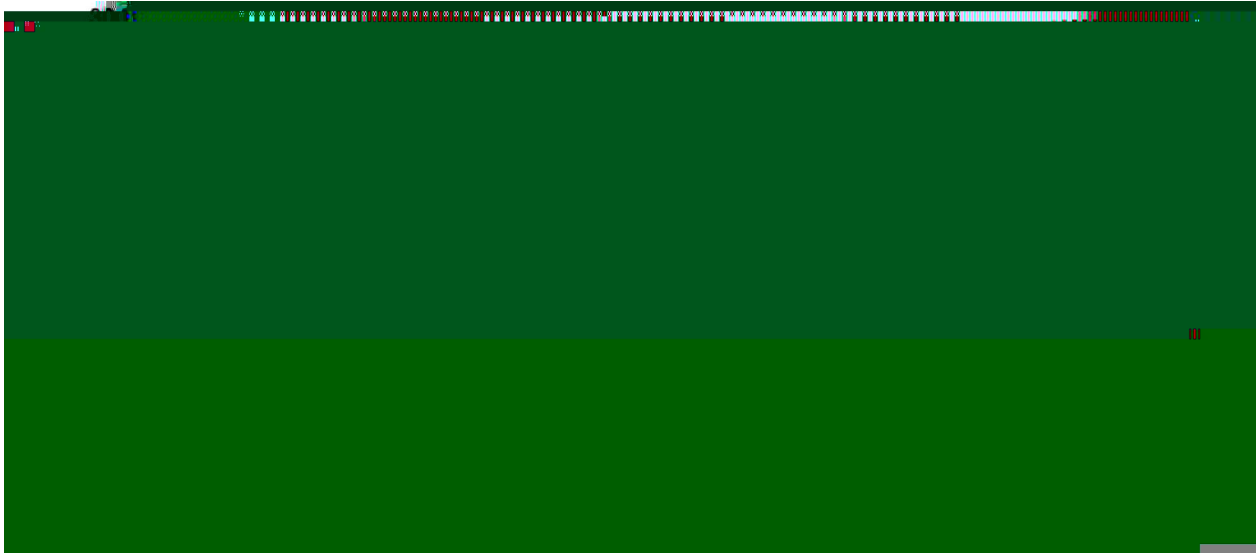
Note:

BR: Company Code

B1658: Product Type.

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

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



- |   |       |     |           |        |   |                                      |
|---|-------|-----|-----------|--------|---|--------------------------------------|
| 1 | 25    | 150 | 60        | 90sec; | Note:                                   | 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 <sup>3</sup> )		

/ TUBE

Package Type	Units				Dimension (unit mm <sup>3</sup> )		

/ Notices