

**/ Descriptions**

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

**/ Features**

Low saturation voltage, high DC current gain.

**/ Applications**

Audio frequency amplifier and switching applications.

**/ Equivalent Circuit**



**/ Pinning**



PIN1 Emitter      PIN 2 Collector      PIN 3 Base

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

See Marking Instructions.

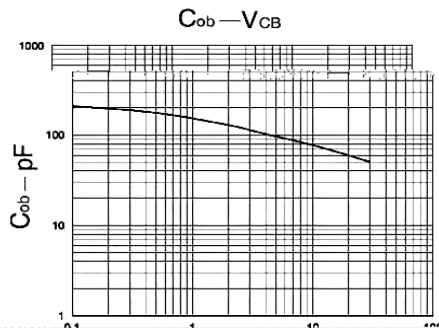
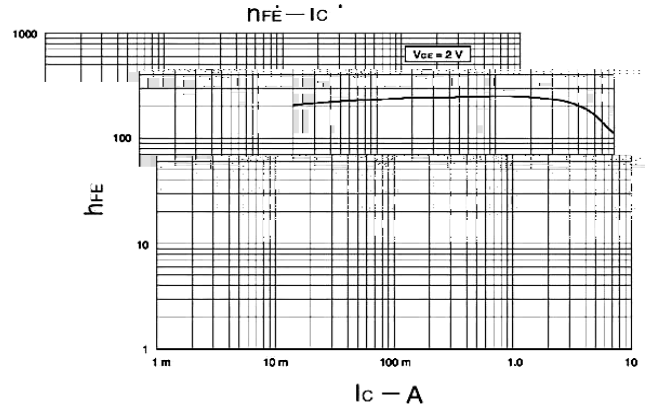
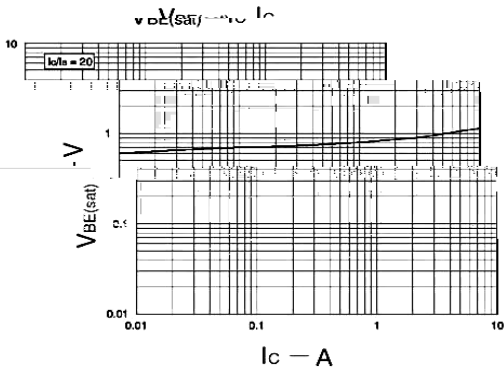
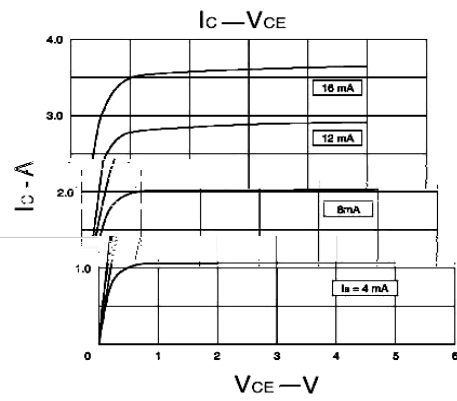
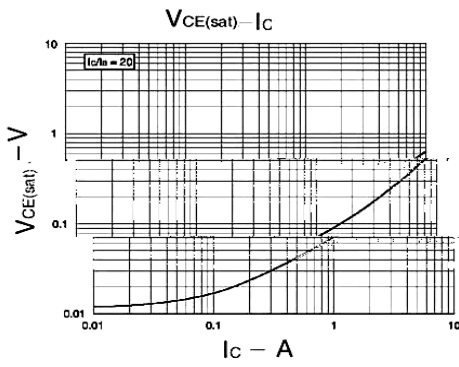
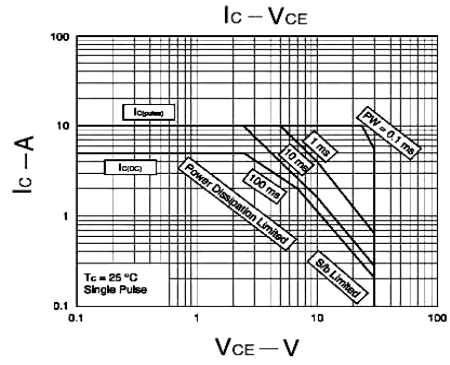
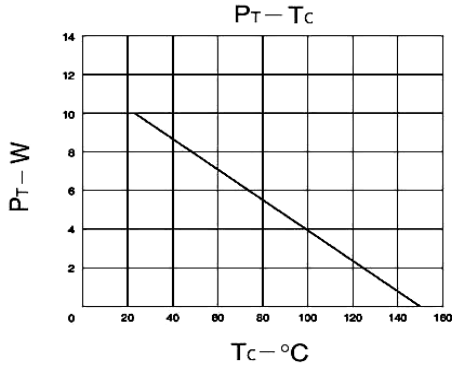
**/ Absolute Maximum Ratings(Ta=25 )**

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	$P_C (T_c=25^{\circ}C)$	10	W
Junction Temperature	$T_j$	150	$^{\circ}C$
Storage Temperature Range	$T_{stg}$	-55 150	$^{\circ}C$

**/ Electrical Characteristics(Ta=25 )**

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector Cut-Off Current	$I_{CBO}$	$V_{CB}=30V$ $I_E=0$			0.1	A
Emitter Cut-Off Current	$I_{EBO}$	$V_{EB}=6.0V$ $I_C=0$			0.1	A
DC Current Gain	$h_{FE(1)}$	$V_{CE}=2.0V$ $I_C=1.0A$	150		600	
	$h_{FE(2)}$	$V_{CE}=2.0V$ $I_C=4.0A$	50			
Collector to Emitter Saturation Voltage	$V_{CE(sat)(1)}$	$I_C=1.0A$ $I_B=50mA$		0.07	0.15	V
	$V_{CE(sat)(2)}$	$I_C=2.0A$ $I_B=0.1A$		0.13	0.25	V
	$V_{CE(sat)(3)}$	$I_C=4.0A$ $I_B=0.2A$		0.24	0.50	V
Base to Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=2.0A$ $I_B=0.1A$		0.86	1.50	V
Transition Frequency	$f_T$	$V_{CE}=10V$ $I_C=50mA$		120		MHz
Reverse Transfer Capacitance	$C_{ob}$	$V_{CB}=10V$ $f=1.0MHz$		77		pF

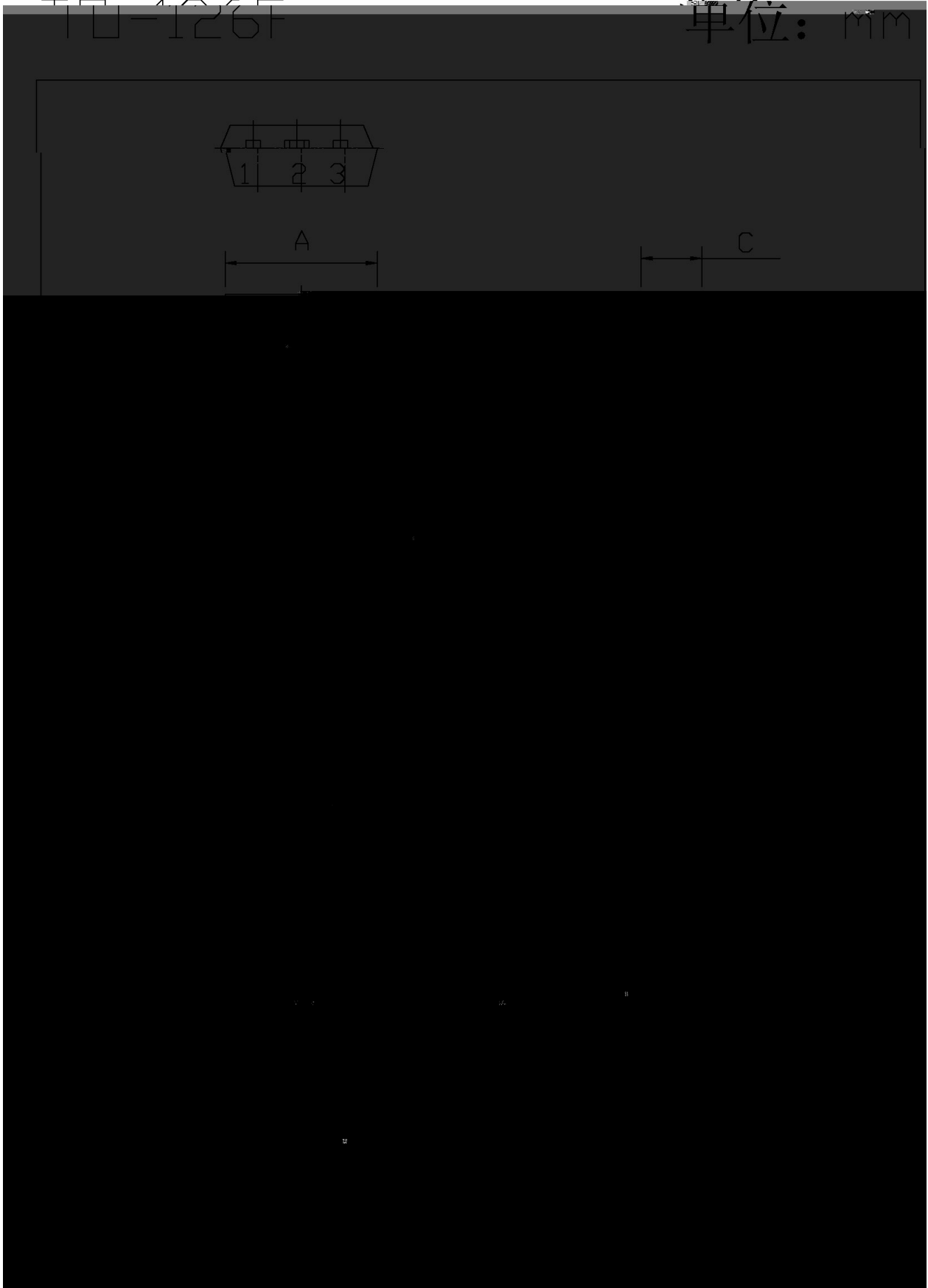
/ Electrical Characteristic Curve



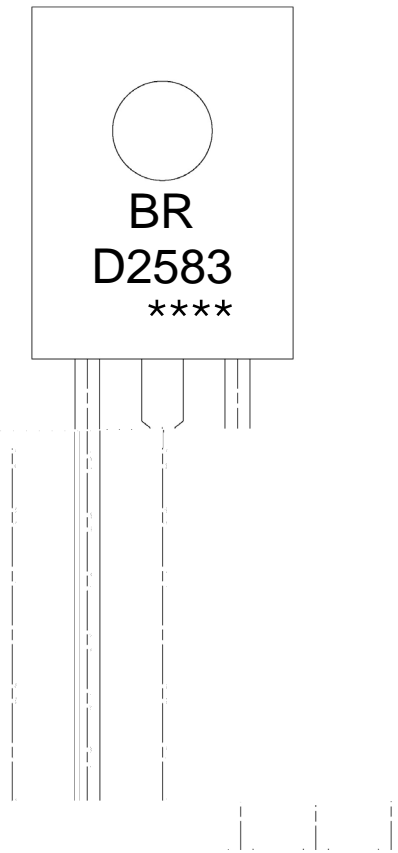
/ Package Dimensions

TU-126F

单位: mm



**/ Marking Instructions**



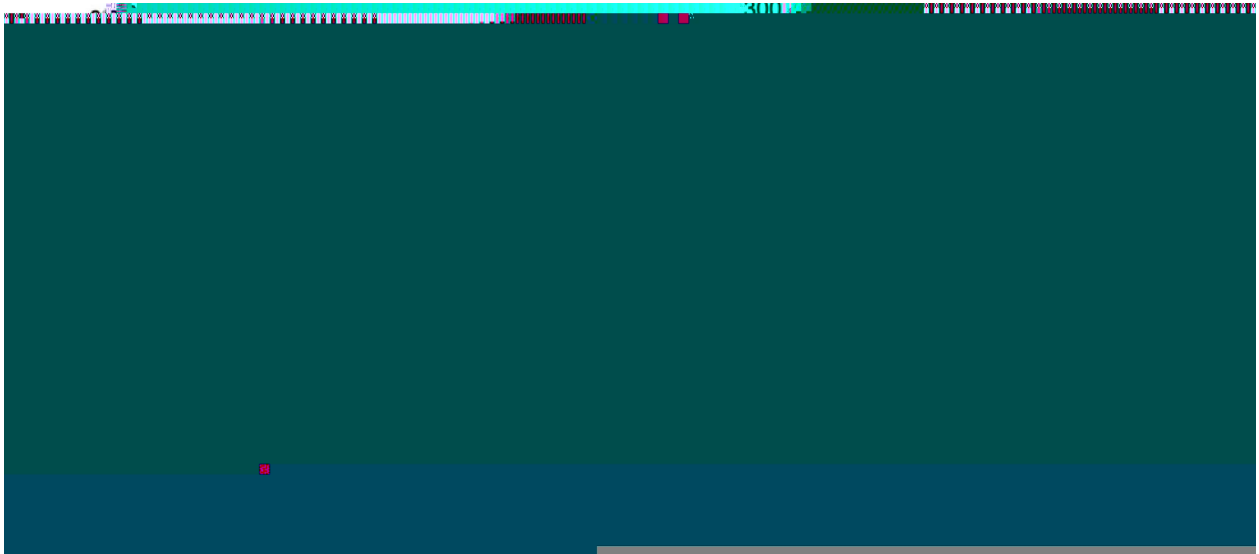
Note:

BR: Company Code

D2583: 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 封装形式	Units 包装数量		Dimension 包装尺寸 (unit: mm <sup>3</sup> )
	Units/Tube 只/套管	Tubes/Inner Box 套管/盒	
		Units/Inner Box 只/盒	