

/ Descriptions

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

/ Features

2SA886 4W
4W output in complementary pair with 2SA886.

/ Applications

Medium power amplifier.

/ Equivalent Circuit



/ Pinning



PIN1 Emitter PIN 2 Collector PIN 3 Base

/ h_{FE} Classifications & Marking

h_{FE} Classifications Symbol	P	Q	R
h_{FE} Range	50~100	80~160	120~220

/ Absolute Maximum Ratings(Ta=25 °C)

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	50	V
Collector to Emitter Voltage	V_{CEO}	40	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
Collector Power Dissipation	P_C	1.2	W
Collector Power Dissipation*	$*P_C(T_C=25^{\circ}C)$	5.0*	W
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_{stg}	-55~150	°C

* θ_{JA} :100×100×20mm

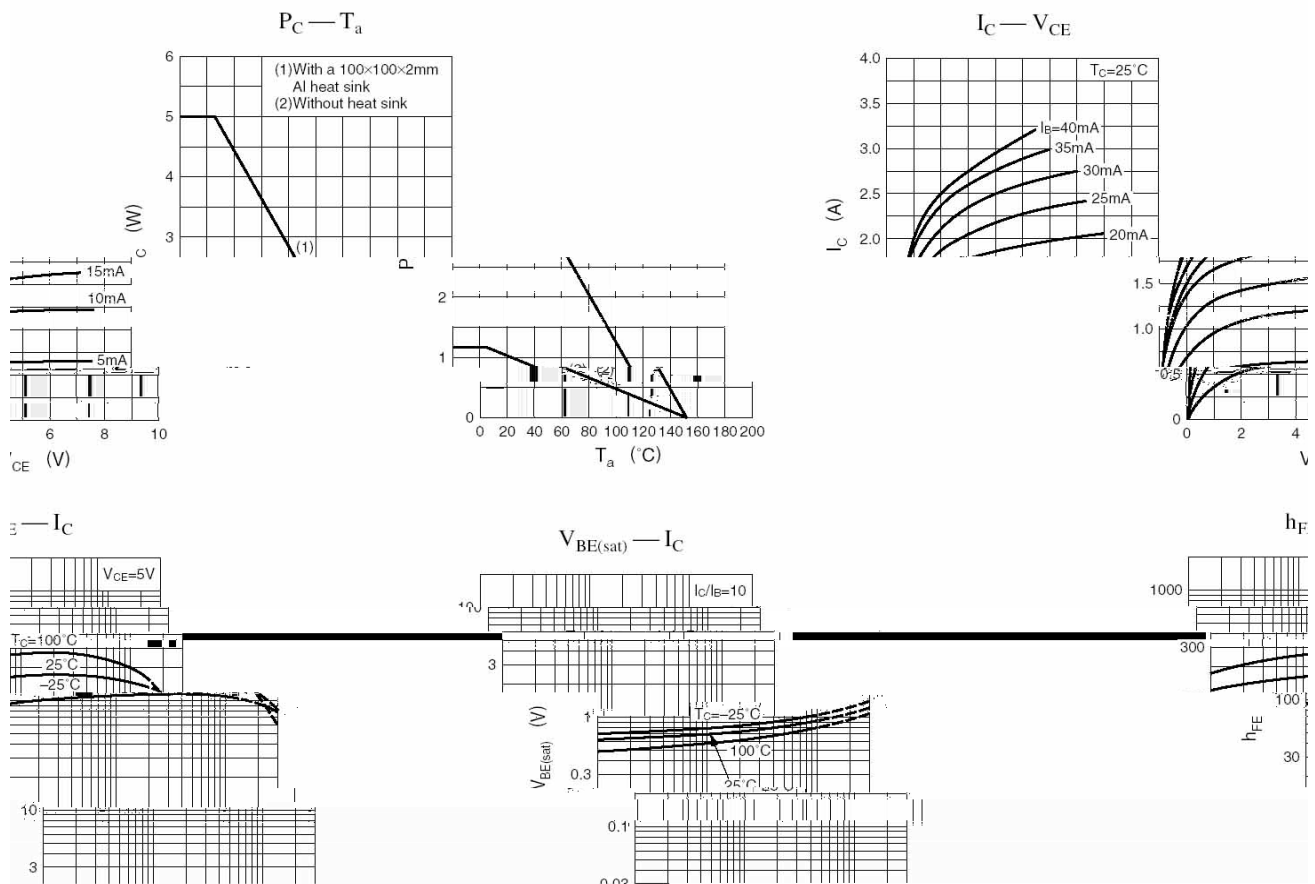
*With a 100×100×20mm AL heat sink

/ Electrical Characteristics(Ta=25 °C)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector to Base Breakdown Voltage	V_{CBO}	$I_C=1.0mA$ $I_E=0$	50			V
Collector to Emitter Breakdown Voltage	V_{CEO}	$I_C=2.0mA$ $I_B=0$	40			V
Collector Cut-Off Current	I_{CBO}	$V_{CB}=20V$ $I_E=0$			1.0	A
Collector Cut-Off Current	I_{CEO}	$V_{CE}=10V$ $I_B=0$			100	A
Emitter Cut-Off Current	I_{EBO}	$V_{EB}=5.0V$ $I_C=0$			10	A
DC Current Gain*	$*h_{FE}$	$V_{CE}=5.0V$ $I_C=1.0A^*$	50	120	220	
Collector to Emitter Saturation Voltage*	$*V_{CE(sat)}$	$I_C=2.0A$ $I_B=0.2A^*$			1.0	V
Base to Emitter Saturation Voltage	$*V_{BE(sat)}$	$I_C=2.0A$ $I_B=0.2A^*$			1.5	V
Transition Frequency*	$*f_T$	$V_{CE}=5.0V$ $I_C=0.5A^*$		150		MHz
Reverse Transfer Capacitance	C_{ob}	$V_{CB}=20V$ $f=1.0MHz$ $I_E=0$		35		pF

/Pulse Test

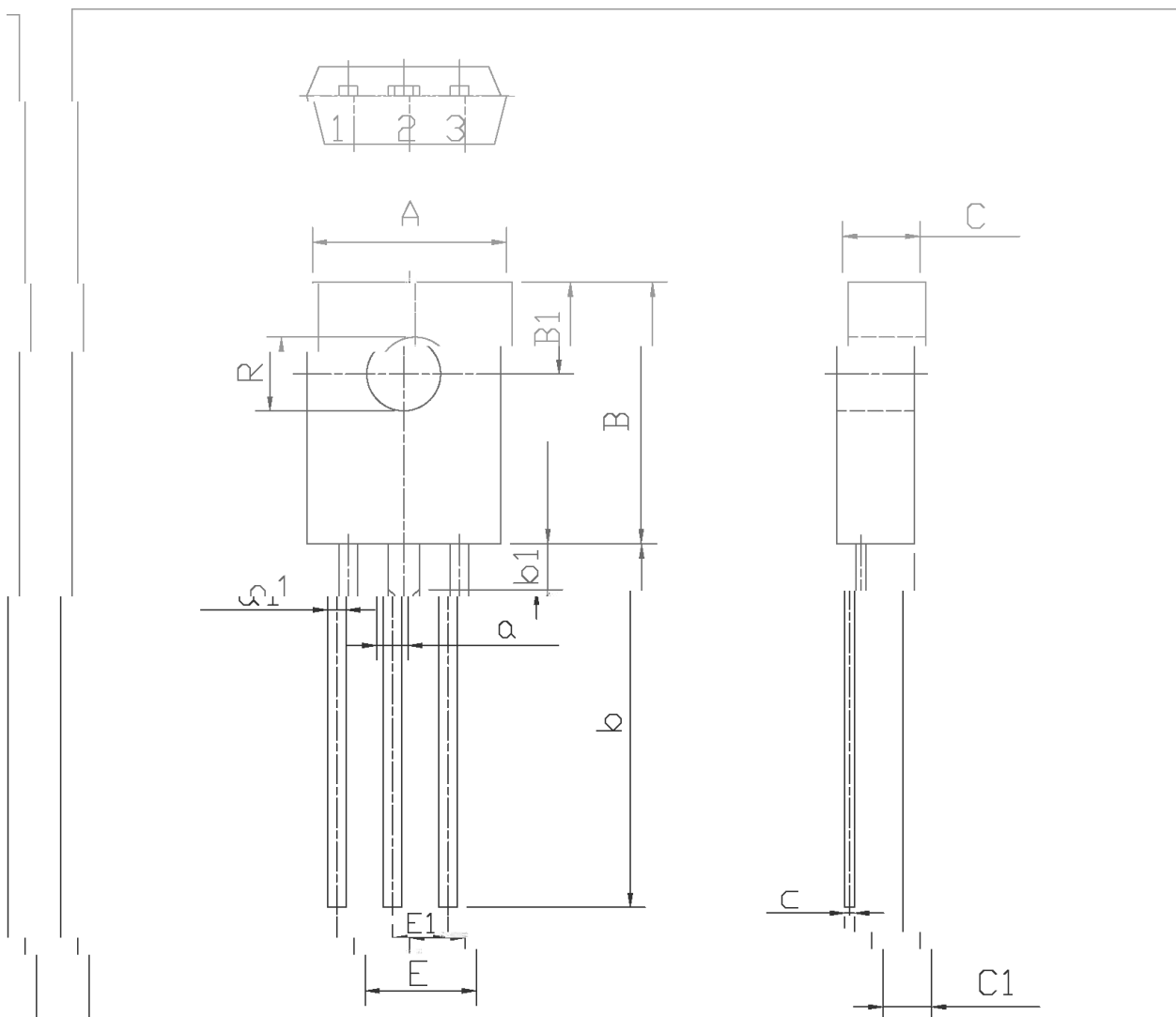
/ Electrical Characteristic Curve



/ Package Dimensions

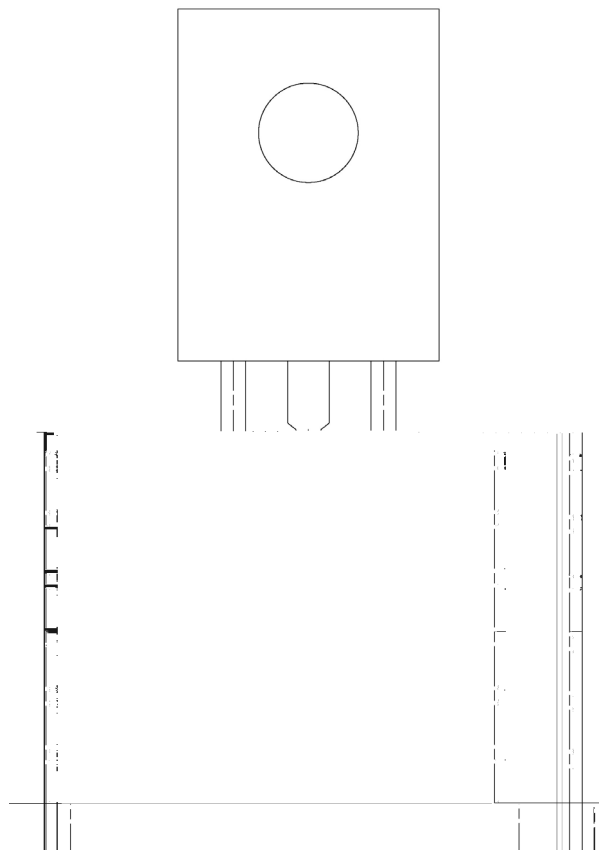
TO-18

单位: mm

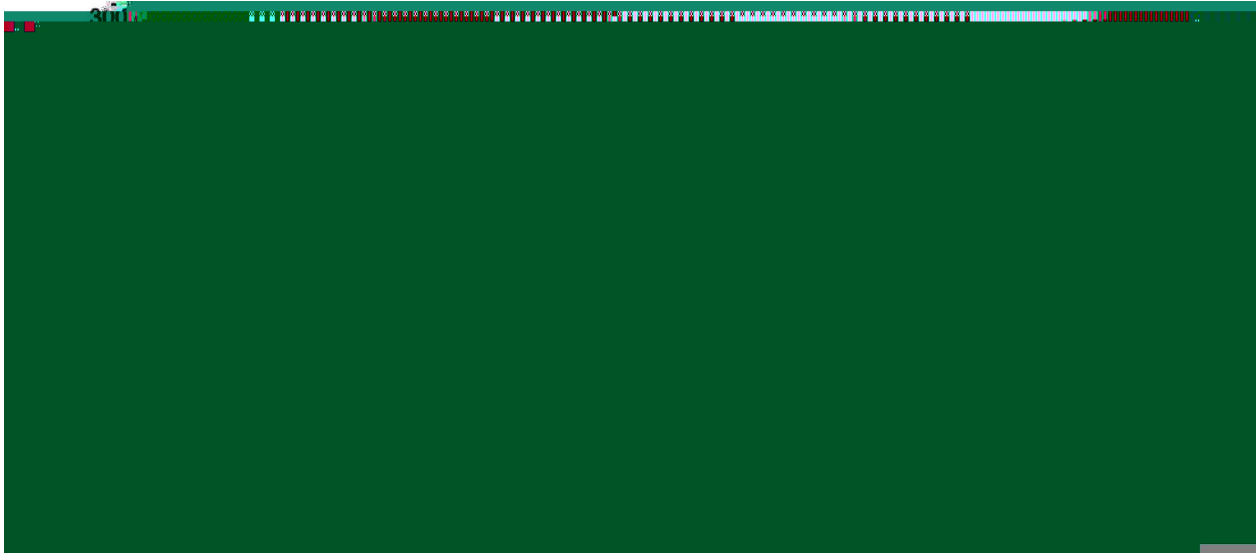


Symbol	Dimensions In Millimeters		Symbol	Dimensions In Millimeters	
	Min	Max		Min	Max
A	7.8	8.2	a1	0.66	0.86
B	10.8	11.2	E	4.4	4.8
B1	3.8	4.2	C	3.1	3.3
R	2.5	3.5	C1	1.0	2.1
b	14	16	c	0.3	0.6
b1	1.9		a	1.27	
E1	2.1	2.5			

/ Marking Instructions



() / 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 Box /	Units/Outer Box /	Tube	Inner Box	Outer Box
TO-126/F	500	6	3,000	5	15,000	135×190	237×172×102	560×245×195

/ TUBE

Package Type	Units					Dimension (unit mm ³)		
	Units/Tube /	Tubes/Inner Box /	Units/Inner Box /	Inner Boxes/Outer Box /	Units/Outer Box /	Tube	Inner Box	Outer Box
TO-126/F	65	26	1,690	5	8,450	532×31×5.6	555×164×50	575×290×180