

/ Descriptions

TO-126F

NPN

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

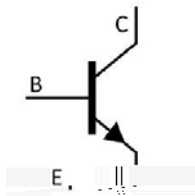
/ Features

 $V_{CE(sat)}$, h_{FE} Low saturation voltage, excellent h_{FE} linearity and high h_{FE} .

/ Applications

Power amplifier and switching applications.

/ Equivalent Circuit



/ Pinning



PIN1 Emitter

PIN 2 Collector

PIN 3 Base

/ h_{FE} Classifications & Marking

See Marking Instructions.

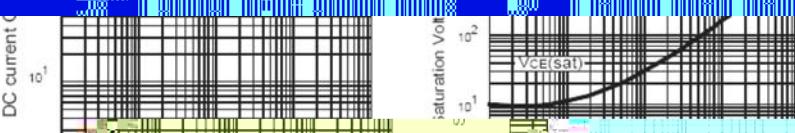
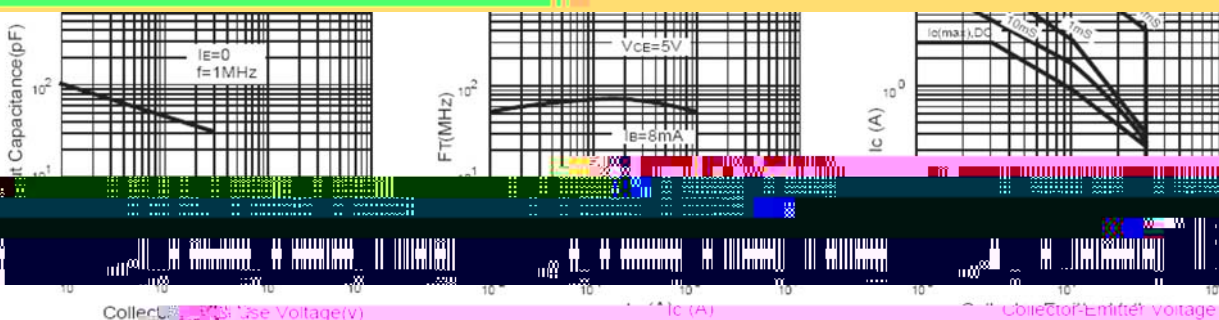
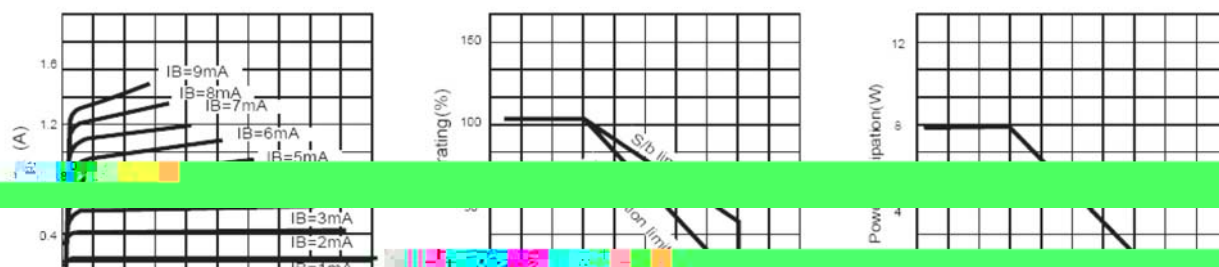
/ Absolute Maximum Ratings(Ta=25)

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	50	V
Collector to Emitter Voltage	V_{CEO}	50	V
Emitter to Base Voltage	V_{EBO}	5.0	V
Collector Current - Continuous	I_C	3.0	A
Peak Collector Current	I_{CM}	7.0	A
Base Current – Continuous	I_B	0.6	A
Collector Power Dissipation	$P_C(T_C=25^{\circ}C)$	10	W
Collector Power Dissipation	P_C	1.0	W
Junction Temperature	T_j	150	$^{\circ}C$
Storage Temperature Range	T_{stg}	-55 150	$^{\circ}C$

/ Electrical Characteristics(Ta=25)

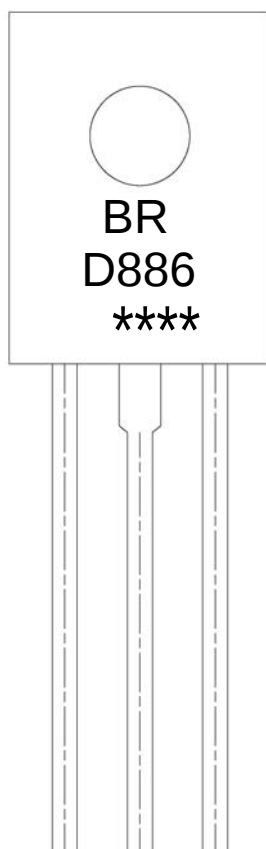
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector to Base Breakdown Voltage	V_{CBO}	$I_C=100\mu A$ $I_E=0$	50			V
Collector to Emitter Breakdown Voltage	V_{CEO}	$I_C=5mA$ $I_B=0$	50			V
Emitter to Base Breakdown Voltage	V_{EBO}	$I_E=100\mu A$ $I_C=0$	5.0			V
Collector Cut-Off Current	I_{CBO}	$V_{CB}=50V$ $I_E=0$			1.0	μA
Emitter Cut-Off Current	I_{EBO}	$V_{EB}=3.0V$ $I_C=0$			1.0	μA
DC Current Gain	$h_{FE(1)}$	$V_{CE}=2.0V$ $I_C=1.0A$	100		400	
	$h_{FE(2)}$	$V_{CE}=2.0V$ $I_C=20mA$	100			
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=2.0A$ $I_B=200mA$			0.5	V
Base to Emitter Voltage	$V_{BE(sat)}$	$I_C=2.0A$ $I_B=200mA$			2.0	V
Transition Frequency	f_T	$V_{CE}=5.0V$ $I_C=100mA$		80		MHz
Collector output capacitance	C_{ob}	$V_{CB}=10V$ $f_T=1.0MHz$ $I_E=0$		45		pF

/ Electrical Characteristic Curve



/ Package Dimensions

/ Marking Instructions



BR

D886

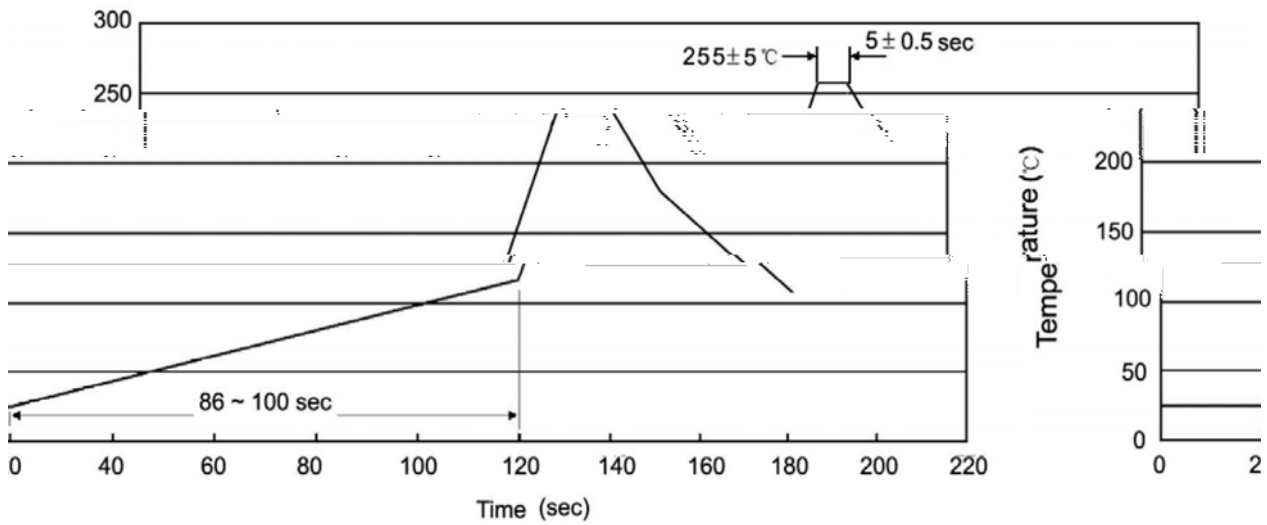
Note:

BR: Company Code

D866: 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	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