

/ Descriptions

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

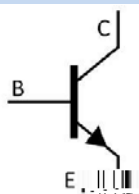
/ Features

Low $V_{CE(sat)}$, large current, high P_C , complementary to 2SB1217.

/ Applications

DC-DC
It is suitable for DC-DC converter, or driver of solenoid or motor.

/ Equivalent Circuit



/ Pinning



PIN1 Emitter PIN 2 Collector PIN 3 Base

/ h_{FE} Classifications & Marking

h_{FE} Classifications Symbol	M	L	K
h_{FE} Range	100~200	60~320	200~400

/ Absolute Maximum Ratings(Ta=25)

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	60	V
Collector to Emitter Voltage	V_{CEO}	60	V
Emitter to Base Voltage	V_{EBO}	7.0	V
Collector Current - Continuous	I_C	3.0	A
Collector Current – Continuous	I_{CM}	5.0	A
Base Current - Continuous	I_B	0.5	A
Collector Power Dissipation	P_C	1.3	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)

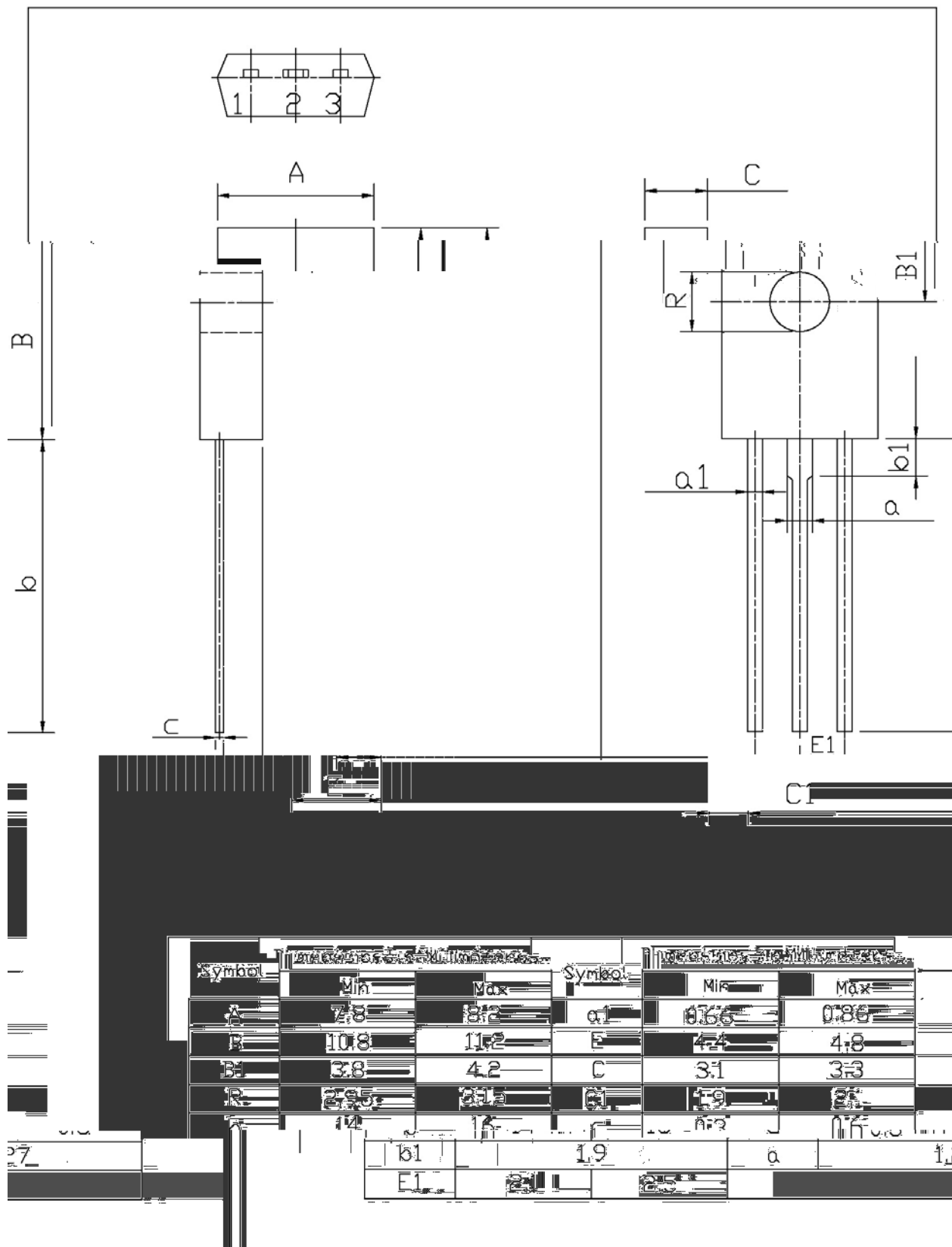
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector Cut-Off Current	I_{CBO}	$V_{CB}=60V$ $I_E=0$			10	μA
Emitter Cut-Off Current	I_{EBO}	$V_{EB}=7V$ $I_C=0$			10	μA
DC Current Gain	$h_{FE(1)}$	$V_{CE}=2V$ $I_C=600mA$	100		400	
	$h_{FE(2)}$	$V_{CE}=2V$ $I_C=2A$	50			
	$h_{FE(3)}$	$V_{CE}=2V$ $I_C=200mA$	60			
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=1.5A$ $I_B=150mA$		0.14	0.25	V
Base to Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=1.5A$ $I_B=150mA$		0.9	1.2	V
Turn-On Time	t_{on}	$R_L=5.0\Omega$ $V_{CC}=10V$ $I_{B1}=I_{B2}=0.2A$ $I_C=2.0A$		0.15	0.5	μs
Storage Time	t_{stg}			0.75	2.0	μs
Fall Time	t_f			0.2	0.5	μs

2SD1818

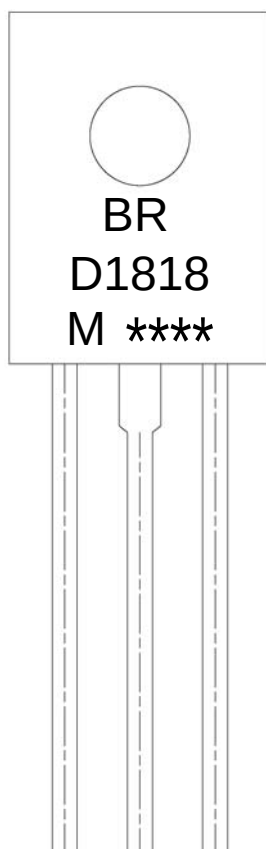
/ Package Dimensions

T0-126F

单位: mm



/ Marking Instructions



BR

D1818

M: h_{FE}

Note:

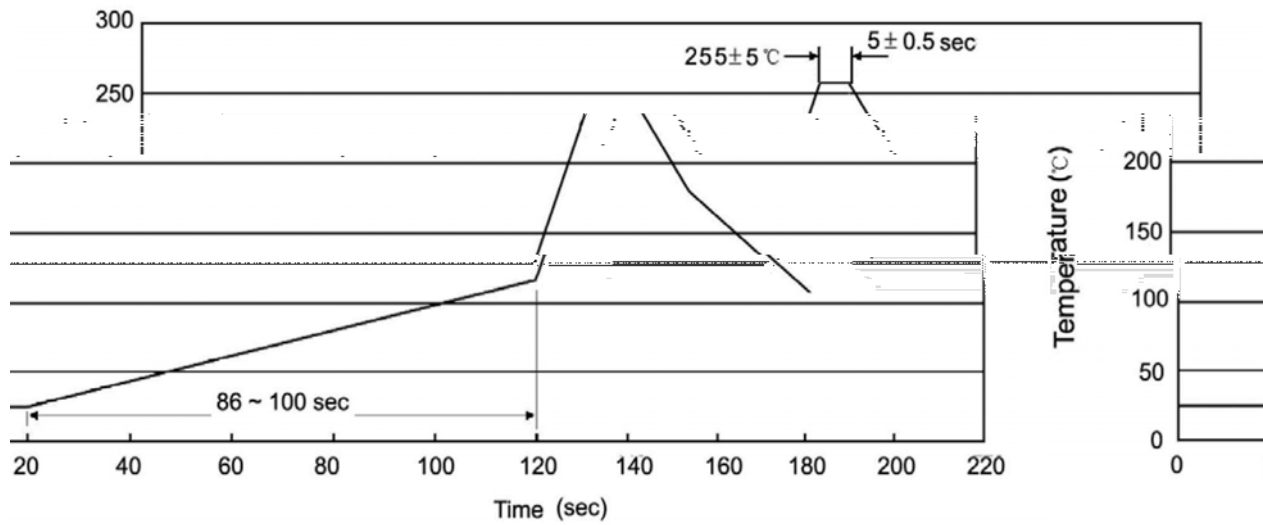
BR: Company Code

D1818: Product Type.

M: h_{FE} Classifications Symbol

****: 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 | | | | | |