



# H2N6718L

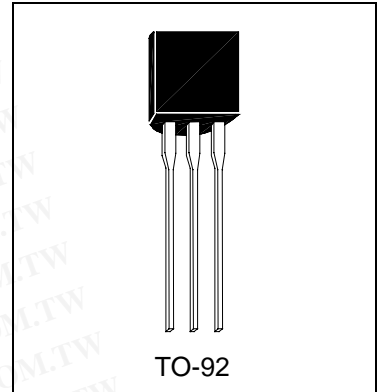
NPN EPITAXIAL PLANAR TRANSISTOR

## Description

The H2N6718L is designed for general purpose medium power amplifier and switching applications.

## Features

- High Power: 850mW
- High Current: 1A



## Absolute Maximum Ratings

- Maximum Temperatures
  - Storage Temperature ..... -55 ~ +150 °C
  - Junction Temperature ..... +150 °C Maximum
- Maximum Power Dissipation
  - Total Power Dissipation (Ta=25°C) ..... 850 mW
- Maximum Voltages and Currents (Ta=25°C)
  - VCBO Collector to Base Voltage ..... 100 V
  - VCEO Collector to Emitter Voltage ..... 100 V
  - VEBO Emitter to Base Voltage ..... 5 V
  - IC Collector Current (Continue) ..... 1 A
  - IC Collector Current (Pulse) ..... 2 A
  - IB Base Current (Continue) ..... 200 mA

## Electrical Characteristics (Ta=25°C)

Symbol	Min.	Typ.	Max.	Unit	Test Conditions
BVCBO	100	-	-	V	IC=100uA
BVCEO	100	-	-	V	IC=1mA
BVEBO	5	-	-	V	IE=10uA
ICBO	-	-	100	nA	VCB=80V
*VCE(sat)	-	-	350	mV	IB=35mA, IC=350mA
*hFE1	80	-	-		VCE=1V, IC=50mA
*hFE2	50	-	300		VCE=1V, IC=250mA
*hFE3	20	-	-		VCE=1V, IC=500mA
fT	50	-	-	MHz	VCE=10V, IC=50mA, f=100MHz
Cob	-	-	20	pF	VCB=10V, IE=0, f=1MHz

\*Pulse Test: Pulse Width ≤380us, Duty Cycle ≤2%

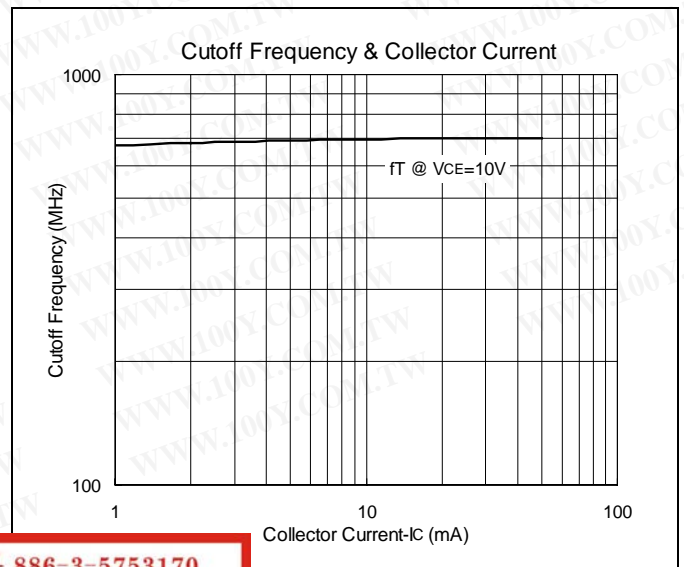
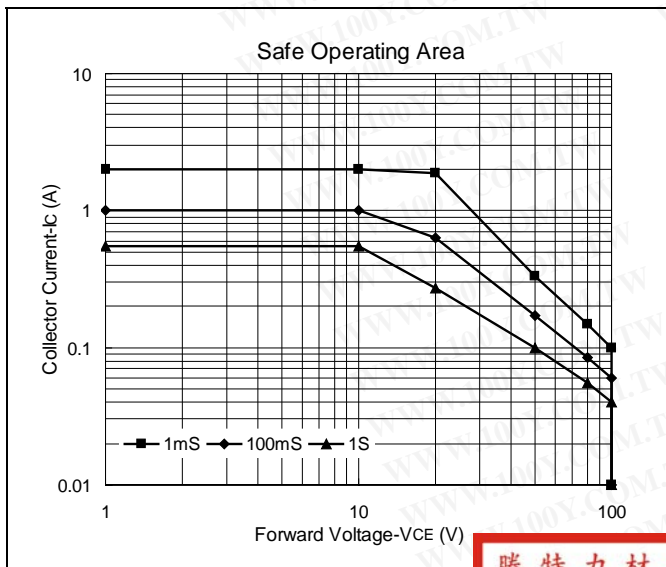
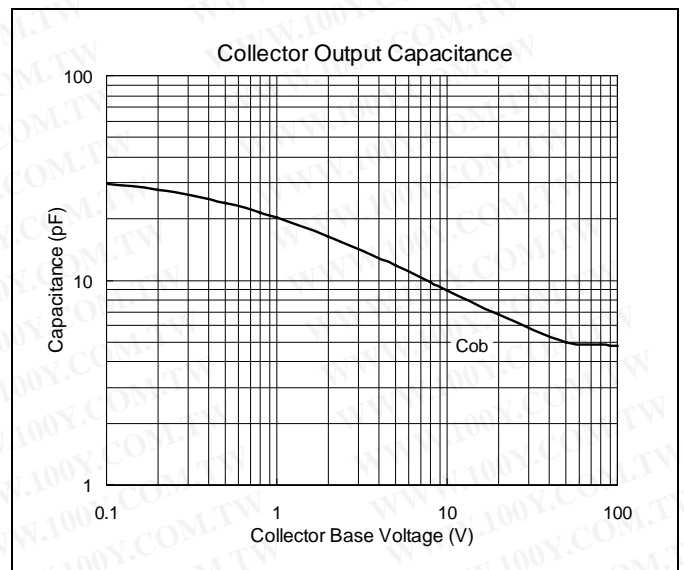
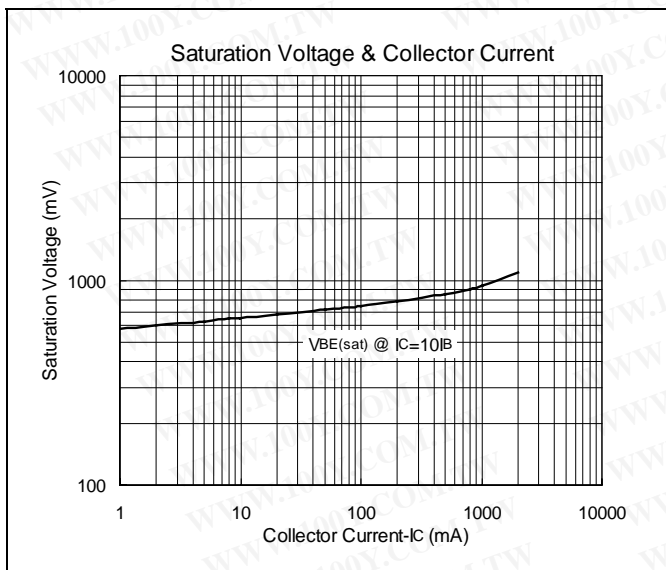
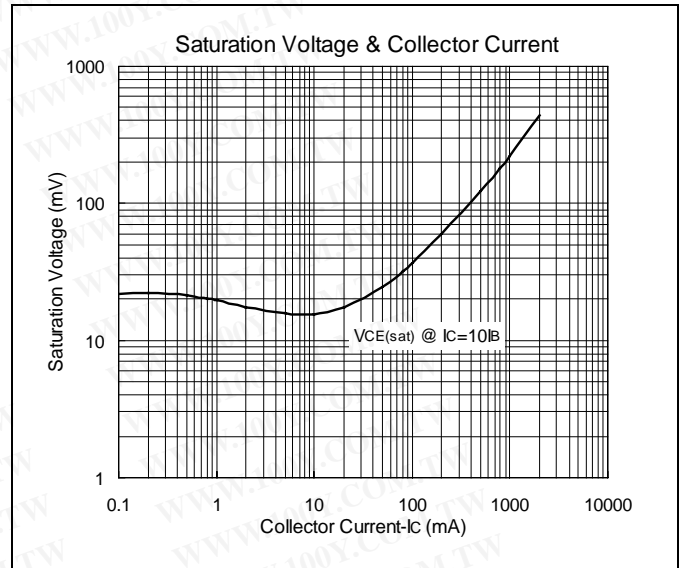
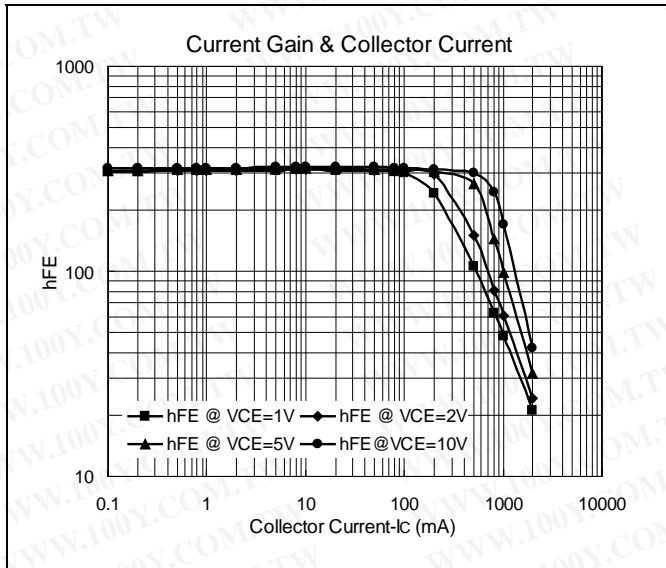
## Classification Of hFE2

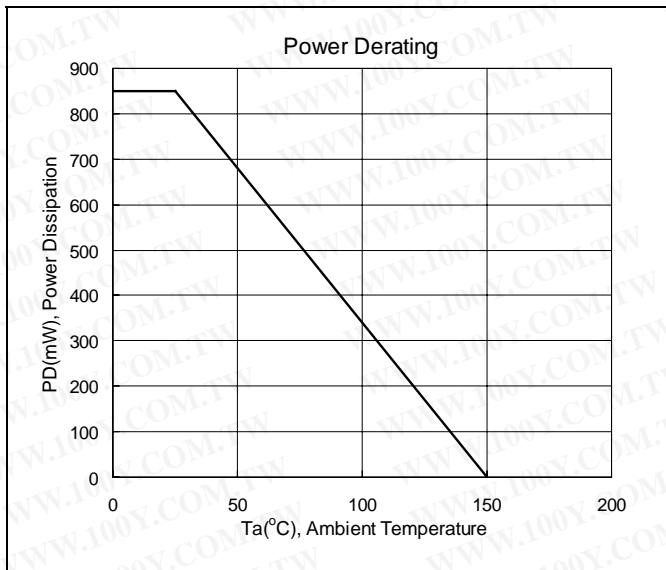
Rank	A	B
Range	50-115	95-300

勝特力材料 886-3-5753170  
勝特力电子(上海) 86-21-34970699  
勝特力电子(深圳) 86-755-83298787  
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### Characteristics Curve





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### TO-92 Dimension

**Marking:**

Pb Free Mark  
 Pb-Free: "♻️" (Note)  
 Normal: None

Note: Green label is used for pb-free packing

Pin Style: 1. Emitter 2. Collector 3. Base

Material:

- Lead solder plating: Sn60/Pb40 (Normal), Sn/3.0Ag/0.5Cu or Pure-Tin (Pb-free)
- Mold Compound: Epoxy resin family, flammability solid burning class: UL94V-0

DIM	Min.	Max.
A	4.33	4.83
B	4.33	4.83
C	12.70	-
D	0.36	0.56
E	-	*1.27
F	3.36	3.76
G	0.36	0.56
H	-	*2.54
I	-	*1.27
$\alpha 1$	-	*5°
$\alpha 2$	-	*2°
$\alpha 3$	-	*2°

\*: Typical, Unit: mm

3-Lead TO-92 Plastic Package  
 HSMC Package Code: A

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### TO-92 Taping Dimension

DIM	Min.	Max.
A	4.33	4.83
D	3.80	4.20
D1	0.36	0.53
D2	4.33	4.83
F1,F2	2.40	2.90
H	15.50	16.50
H1	8.50	9.50
H2	-	1
H2A	-	1
H3	-	27
H4	-	21
L	-	11
L1	2.50	-
P	12.50	12.90
P1	5.95	6.75
P2	50.30	51.30
T	-	0.55
T1	-	1.42
T2	0.36	0.68
W	17.50	19.00
W1	5.00	7.00

Unit: mm

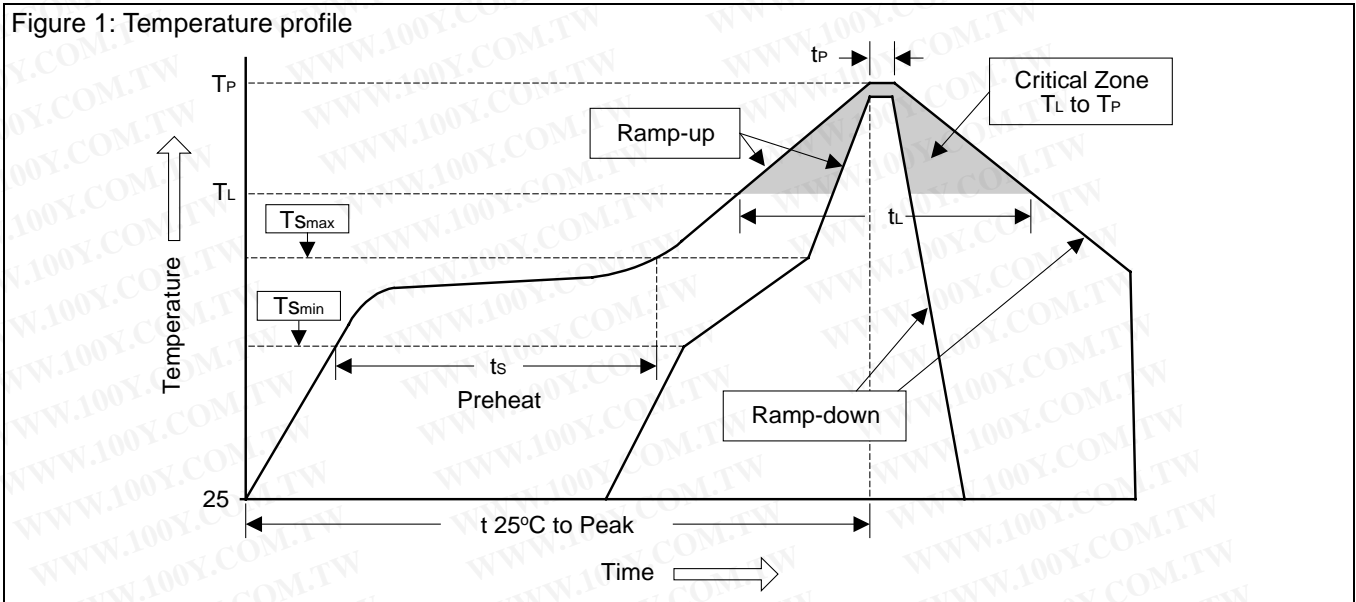
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## Soldering Methods for HSMC's Products

1. Storage environment: Temperature=10°C~35°C Humidity=65%±15%
2. Reflow soldering of surface-mount devices



Profile Feature	Sn-Pb Eutectic Assembly	Pb-Free Assembly
Average ramp-up rate ( $T_L$ to $T_P$ )	<3°C/sec	<3°C/sec
Preheat		
- Temperature Min ( $T_{smin}$ )	100°C	150°C
- Temperature Max ( $T_{smax}$ )	150°C	200°C
- Time (min to max) ( $t_s$ )	60~120 sec	60~180 sec
$T_{smax}$ to $T_L$		
- Ramp-up Rate	<3°C/sec	<3°C/sec
Time maintained above:		
- Temperature ( $T_L$ )	183°C	217°C
- Time ( $t_l$ )	60~150 sec	60~150 sec
Peak Temperature ( $T_P$ )	240°C +0/-5°C	260°C +0/-5°C
Time within 5°C of actual Peak Temperature ( $t_p$ )	10~30 sec	20~40 sec
Ramp-down Rate	<6°C/sec	<6°C/sec
Time 25°C to Peak Temperature	<6 minutes	<8 minutes

### 3. Flow (wave) soldering (solder dipping)

Products	Peak temperature	Dipping time
Pb devices.	245°C ±5°C	5sec ±1sec
Pb-Free devices.	260°C +0/-5°C	5sec ±1sec

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