

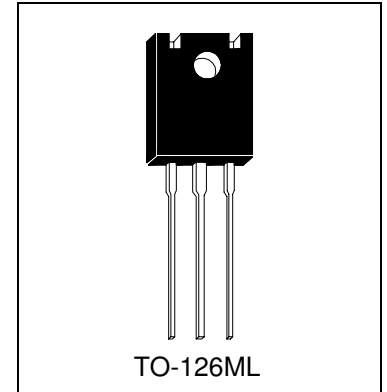


H2N6718V

NPN EPITAXIAL PLANAR TRANSISTOR

Description

The H2N6718V is designed for general purpose medium power amplifier and switching.



Absolute Maximum Ratings

- Maximum Temperatures
 - Storage Temperature -55 ~ +150 °C
 - Junction Temperature +150 °C Maximum
- Maximum Power Dissipation
 - Total Power Dissipation (Ta=25°C)..... 1.6 W
- Maximum Voltages and Currents
 - BVCBO Collector to Base Voltage..... 100 V
 - BVCEO Collector to Emitter Voltage..... 100 V
 - BVEBO Emitter to Base Voltage..... 5 V
 - IC Collector Current 1 A

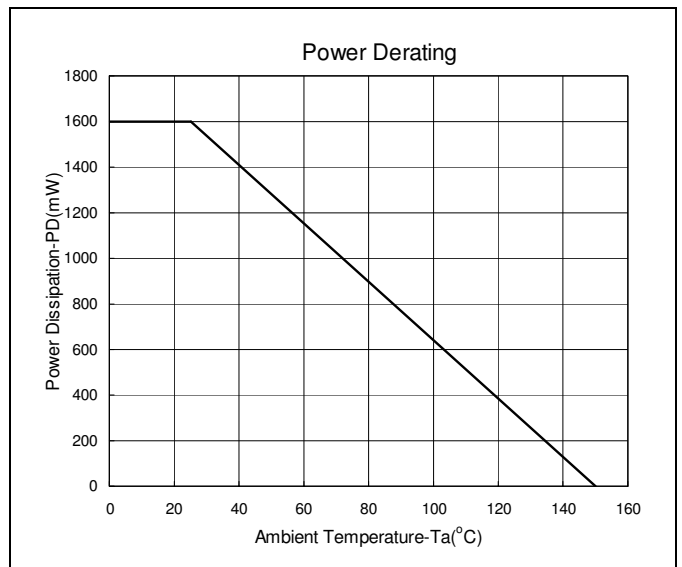
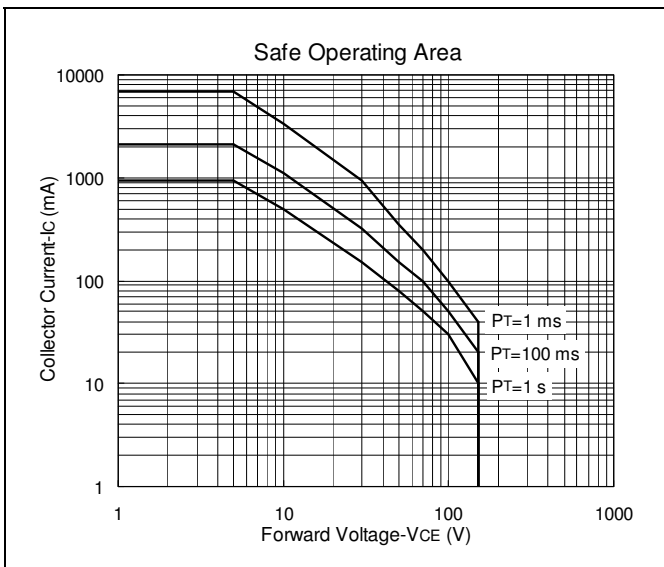
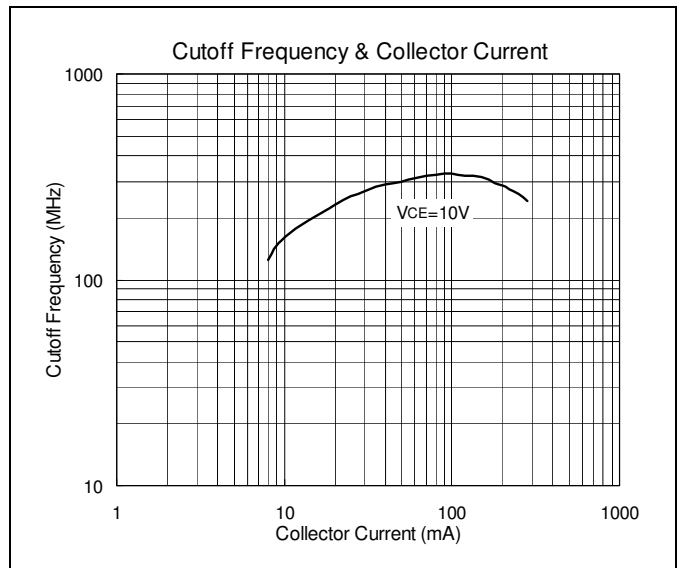
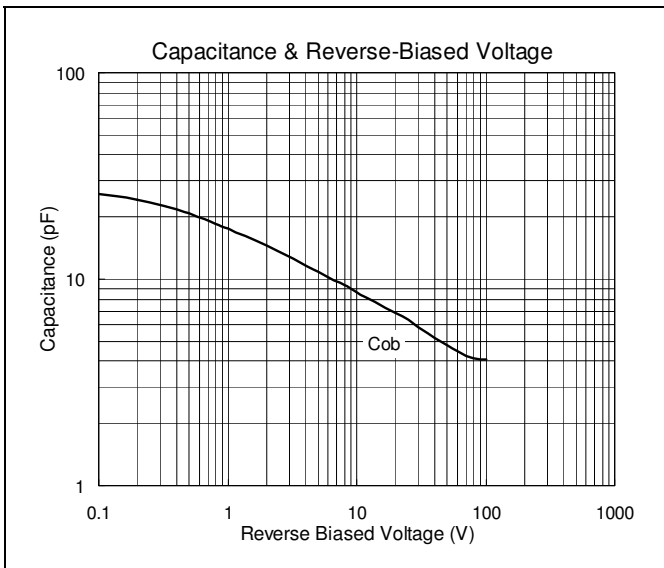
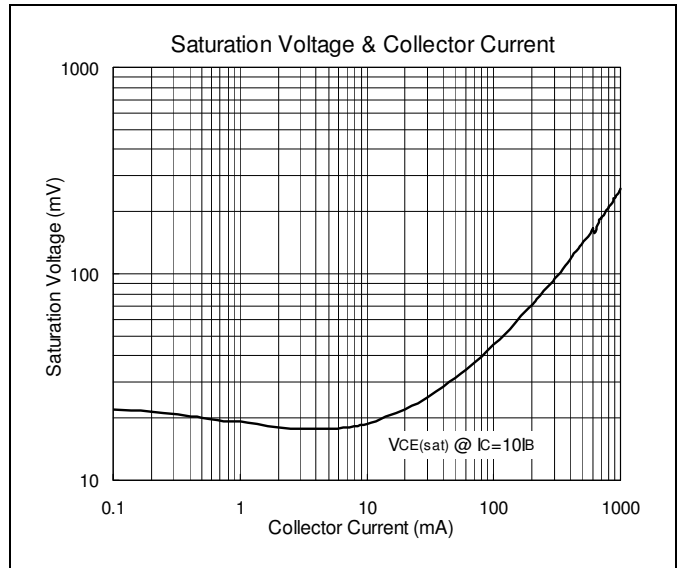
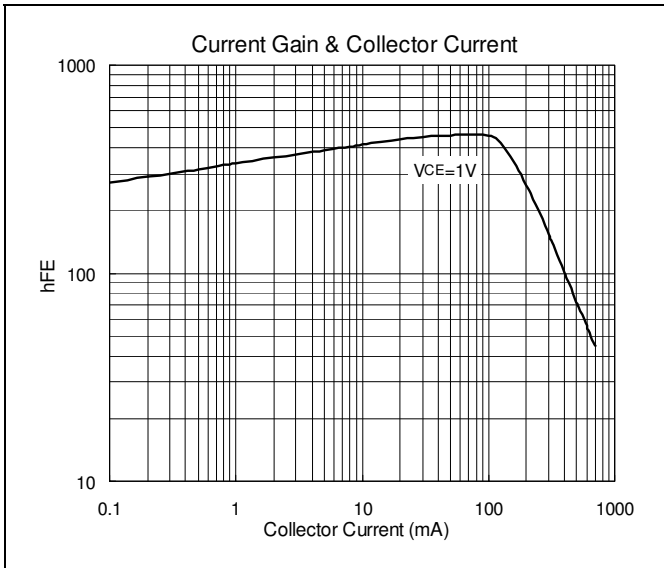
Electrical Characteristics (Ta=25°C)

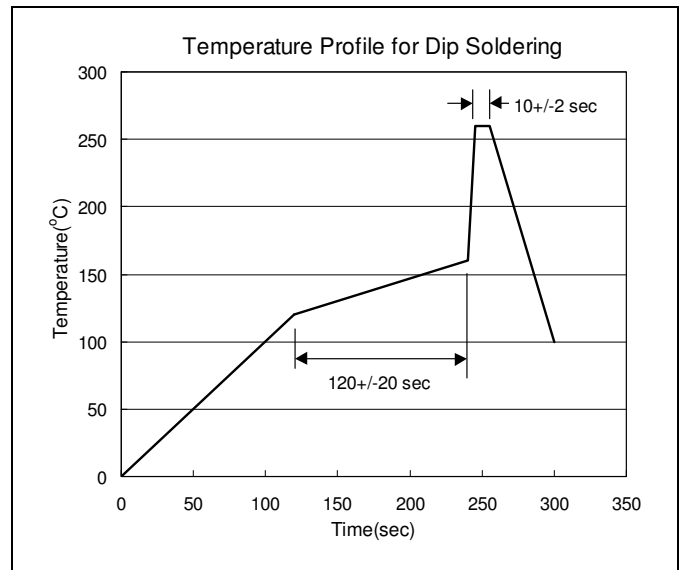
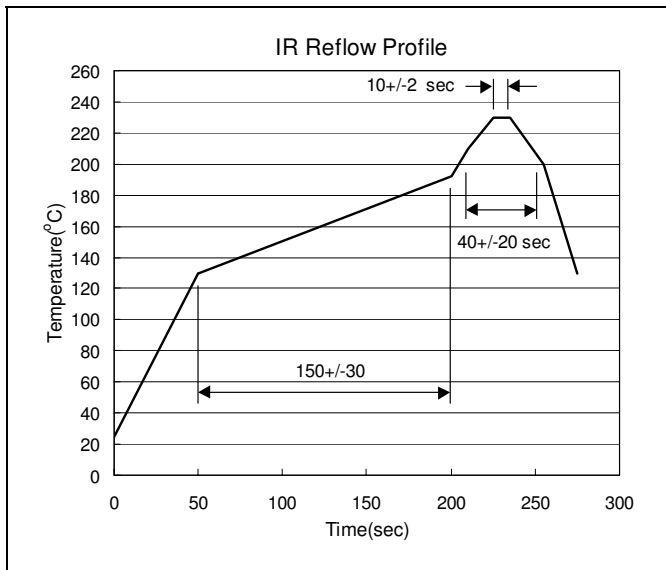
Symbol	Min.	Typ.	Max.	Unit	Test Conditions
BV_{CBO}	100	-	-	V	$I_C=100\mu A, I_E=0$
BV_{CEO}	100	-	-	V	$I_C=1mA, I_B=0$
BV_{EBO}	5	-	-	V	$I_E=10\mu A, I_C=0$
I_{CBO}	-	-	100	nA	$V_{CB}=80V, I_E=0$
$*V_{CE(sat)}$	-	-	350	mV	$I_C=350mA, I_B=35mA$
$*h_{FE1}$	80	-	-		$I_C=50mA, V_{CE}=1V$
$*h_{FE2}$	50	-	250		$I_C=250mA, V_{CE}=1V$
$*h_{FE3}$	20	-	-		$I_C=500mA, V_{CE}=1V$
f_T	50	-	-	MHz	$V_{CE}=10V, I_C=50mA, f=100MHz$
Cob	-	-	20	pF	$V_{CB}=10V, f=1MHz, I_E=0$

*Pulse Test: Pulse Width $\leq 380\mu s$, Duty Cycle $\leq 2\%$



Characteristics Curve







TO-126ML Dimension

Marking:

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

Date Code Control Code

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

3-Lead TO-126ML
 Plastic Package
 HSMC Package Code: D

DIM	Min.	Max.
A	7.74	8.24
B	10.87	11.37
C	0.88	1.12
D	1.28	1.52
E	3.50	3.75
F	2.61	3.37
G	13	-
H	1.18	1.42
I	2.88	3.12
J	0.68	0.84
K	-	2.30
L	3.44	3.70
M	1.88	2.14
N	0.50	0.51

*: Typical, Unit: mm

Important Notice:

- All rights are reserved. Reproduction in whole or in part is prohibited without the prior written approval of HSMC.
- HSMC reserves the right to make changes to its products without notice.
- **HSMC semiconductor products are not warranted to be suitable for use in Life-Support Applications, or systems.**
- HSMC assumes no liability for any consequence of customer product design, infringement of patents, or application assistance.

Head Office And Factory:

- **Head Office** (Hi-Sincerity Microelectronics Corp.): 10F., No. 61, Sec. 2, Chung-Shan N. Rd. Taipei Taiwan R.O.C.
 Tel: 886-2-25212056 Fax: 886-2-25632712, 25368454
- **Factory 1:** No. 38, Kuang Fu S. Rd., Fu-Kou Hsin-Chu Industrial Park Hsin-Chu Taiwan. R.O.C
 Tel: 886-3-5983621~5 Fax: 886-3-5982931



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