



**PRODUCT NAME**

TM8726

**TITLE**

TM8726 電氣特性資料

**APPLICATION NOTE**

一. 注意事項

此份資料僅供參考，所有耗電流皆在無外部負載之情形下測得，並且所有數據皆在室溫(26℃)下測得，所有特性將受到製程、環境溫度、Option、外部負載及電壓等造成差異，不同 Lot 間之 IC 將因受到製程的飄移而略有差異。

二. Power Consumption

LCD : 1/2Bias , 1/4Duty \* 9 Seg , Size : 1cm \* 2.5cm

At 3V , 26°C

TM8726(Crystal and Internal Fast 500kHz 3V)										
單位	$\mu A$	$\mu A$	$\mu A$	$\mu A$	$\mu A$	$\mu A$	$\mu A$	$\mu A$	$\mu A$	頻率誤差(s/d)
3V	√	√	√	√	√	√	√	√	√	√
LCD	on	on	on	on	on	on	on	OFF	OFF	
Operating	√	√	√	√						
Bcf Flag	1	0	1	0	1	1	0	1	0	1 0
Halt						√	√	√	√	√
Stop					√					
500KHz			√	√						
32768Hz	√	√			√	√	√	√	√	√
耗電流(uA)	10.16	1.42	134.88	26.16	0.09	6.84	0.78	6.77	0.71	-0.15 -2.06

TM8726(Internal Fast Only 250kHz 3V)							
3V	√	√	√	√	√	√	√
LCD	on	on	on	on	on	OFF	OFF
Operating	√	√					
Bcf Flag	1	0	1	1	0	1	0
Halt				√	√	√	√
Stop			√				
耗電流	70.06	16.25	0.09	42.92	10.48	42.5	9.95

At 1.5V , 26°C

TM8726(Crystal and Internal Fast 500kHz 1.5V)											
單位	$\mu A$	$\mu A$	$\mu A$	$\mu A$	$\mu A$	$\mu A$	$\mu A$	$\mu A$	$\mu A$	頻率誤差(s/d)	
1.5V	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
LCD	on	on	on	on	on	on	on	OFF	OFF		
Operating	✓	✓	✓	✓							
Bcf Flag	1	0	1	0	1	1	0	1	0	1	0
Halt						✓	✓	✓	✓	✓	
Stop					✓						
500KHz			✓	✓							
32768Hz	✓	✓			✓	✓	✓	✓	✓	✓	✓
耗電流	2.26	2.2	46.43	46.39	0.08	1.16	1.1	1.03	0.97	-0.12	-2.07

TM8726(Internal Fast Only 250kHz 1.5V)							
1.5V	✓	✓	✓	✓	✓	✓	✓
EXT-V							
LCD	on	on	on	on	on	OFF	OFF
Operating	✓	✓					
Bcf Flag	1	0	1	1	0	1	0
Halt				✓	✓	✓	✓
Stop			✓				
耗電流	27.58	27.59	0.08	17.52	17.54	16.56	16.56

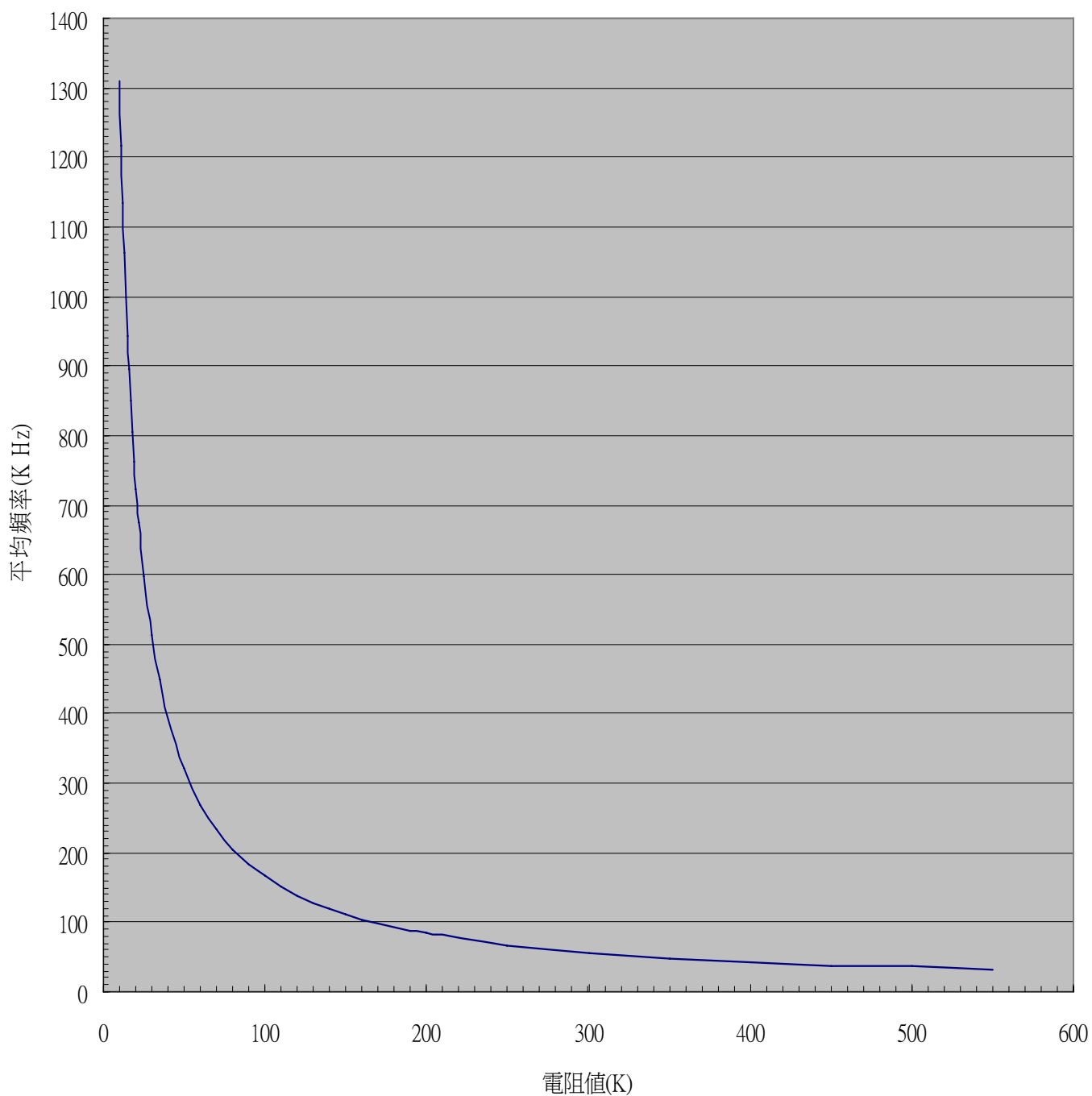
NOTE：頻率誤差指 32768Hz 經匹配電容調整後，每天與實際時間相差幾秒，由於 BCF 的設定將影響 Driver Crystal 線路的驅動能力，因此設計者須注意。不同廠商、批號、型號、品質的 Crystal，PCB layout，匹配電容的品質都將影響頻率誤差。

## 三. Ext-R vs. Frequency vs. Operating Current

At 3V, 26°C

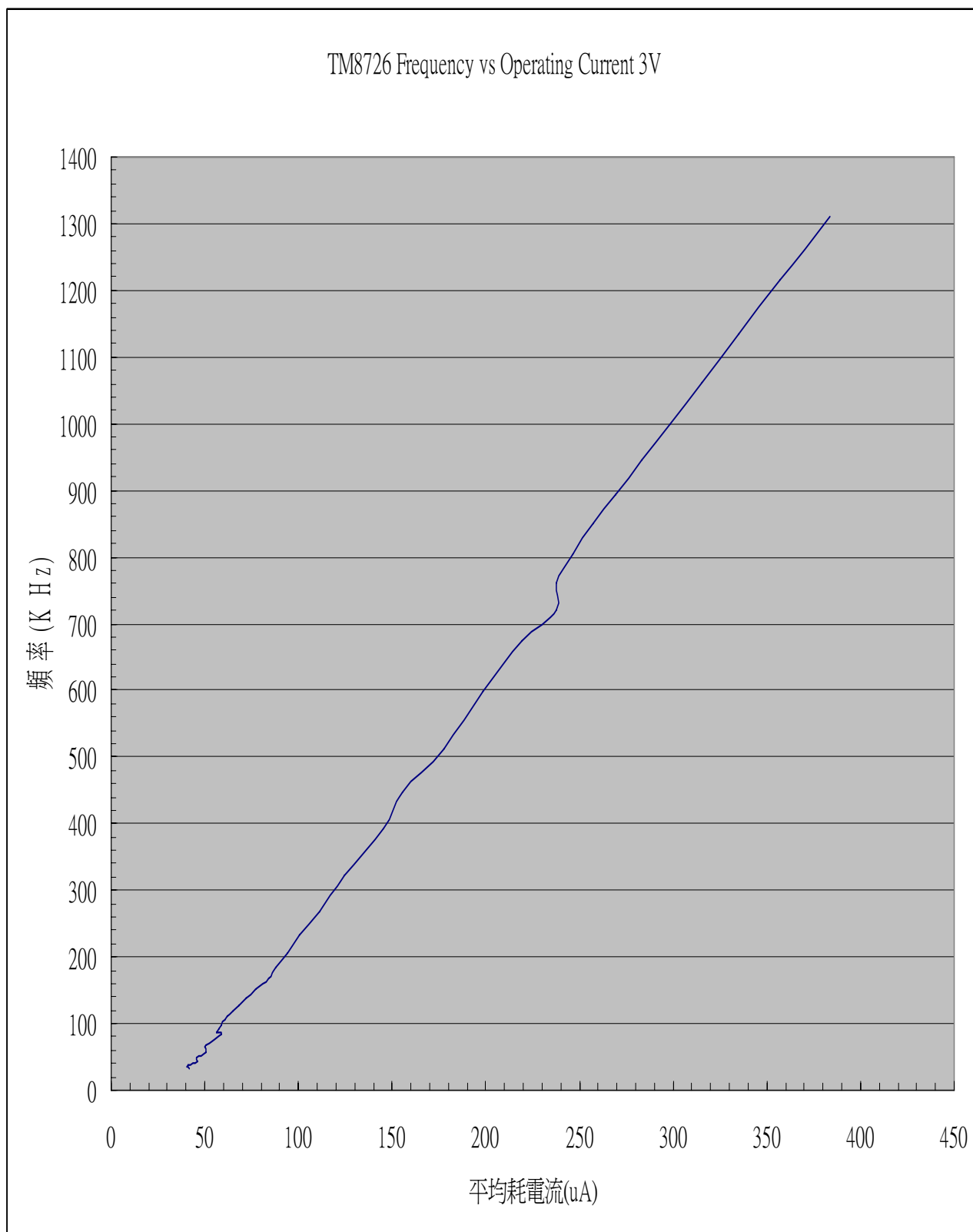
## Ext-R vs. Frequency

8726 Fast R vs Frequency 3V

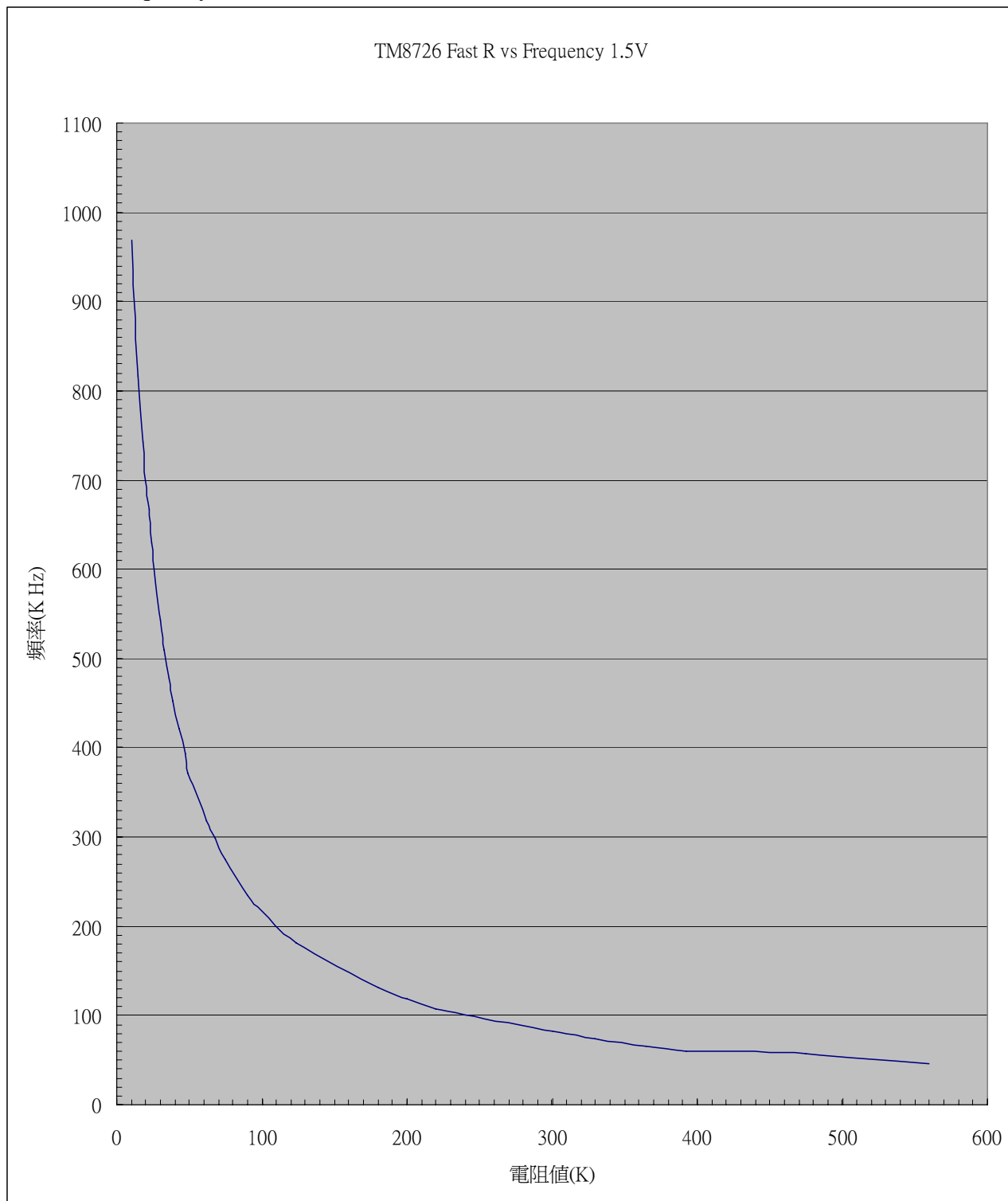


At 3V, 25°C

Frequency vs. Operation Current

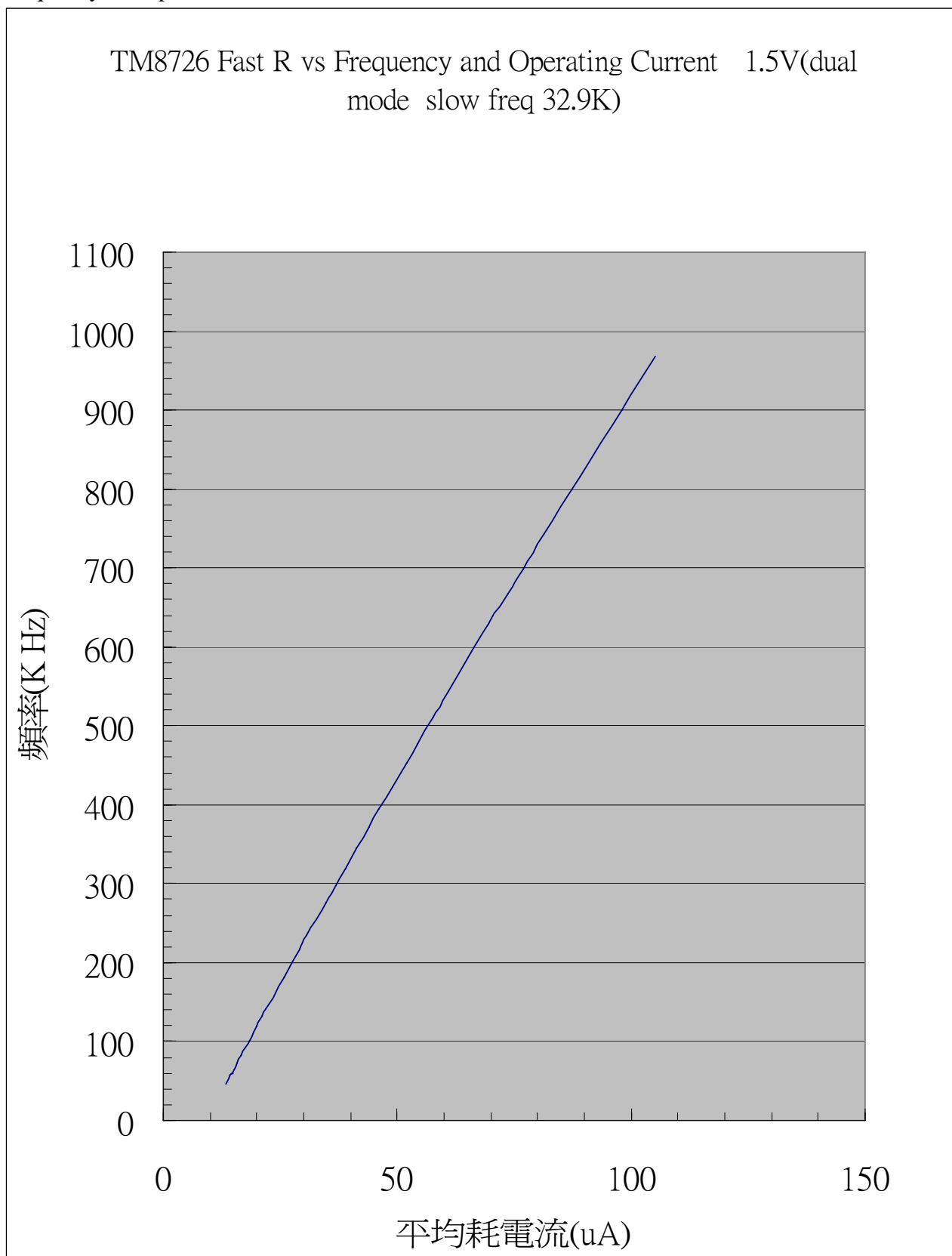


At 1.5V · 25°C  
Ext-R vs. Frequency



At 1.5V, 25°C

Frequency vs. Operation Current



### 三. Slow RC vs. 32768Hz

At 3V , 26°C : 220pF and 49.046 K $\Omega$ (註 1)

At 1.5V , 26°C : 220pF and 42.736 K $\Omega$ (註 1)

註 1 • 以上測試是應用於 Slow RC mode , 頻率響應近似於 32.7KHz 的參考容值及阻值。