



PRODUCT NAME

TM8722

TITLE

TM8722 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(25℃)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 , 25°C

TM8722(Crystal and Internal Fast 500kHz 3V)										
單位	μA	μA	μA	μA	μA	μA	μA	μA	μA	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	9.497143	1.628571	107.1471	22.58714	0.078571	7.701429	1.29	7.068571	0.665714	0.007143 -0.29143

TM8722(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	54.34857	14.57143	0.08	40.12	11.02857	39.21714	9.994286

At 1.5V , 25°C

TM8722(Crystal and Internal Fast 500kHz 1.5V)											
單位	μA	μA	μA	μA	μA	μA	μA	μA	μA	μA	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	2.094285	2.06	45.55428	45.53	0.08	1.405714	1.368571	1.277142	1.234285	0.082857	-0.14

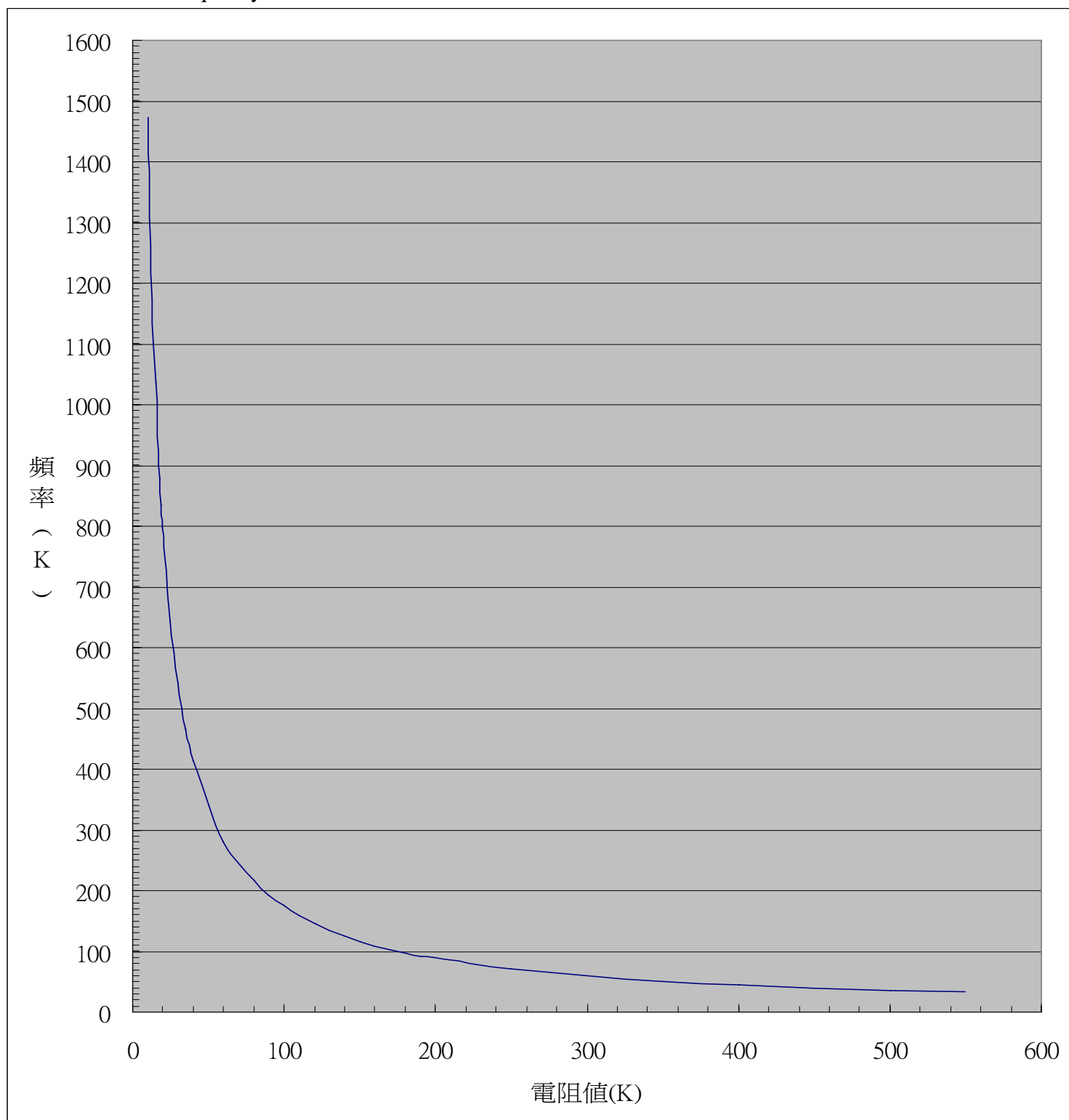
TM8722-980(Internal Fast Only 250kHz 1.5V)							
1.5V	✓	✓	✓	✓	✓	✓	✓
EXT-V							
LCD	on	on	on	on	on	OFF	OFF
Operating	✓	✓					
Bcf Flag	1	0	1	1	0	1	0
Halt				✓	✓	✓	✓
Stop			✓				
耗電流	27.10571	27.21143	0.08	20.16	20.24714	19.35857	19.35857

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 的設定將引響 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引響頻率誤差。

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

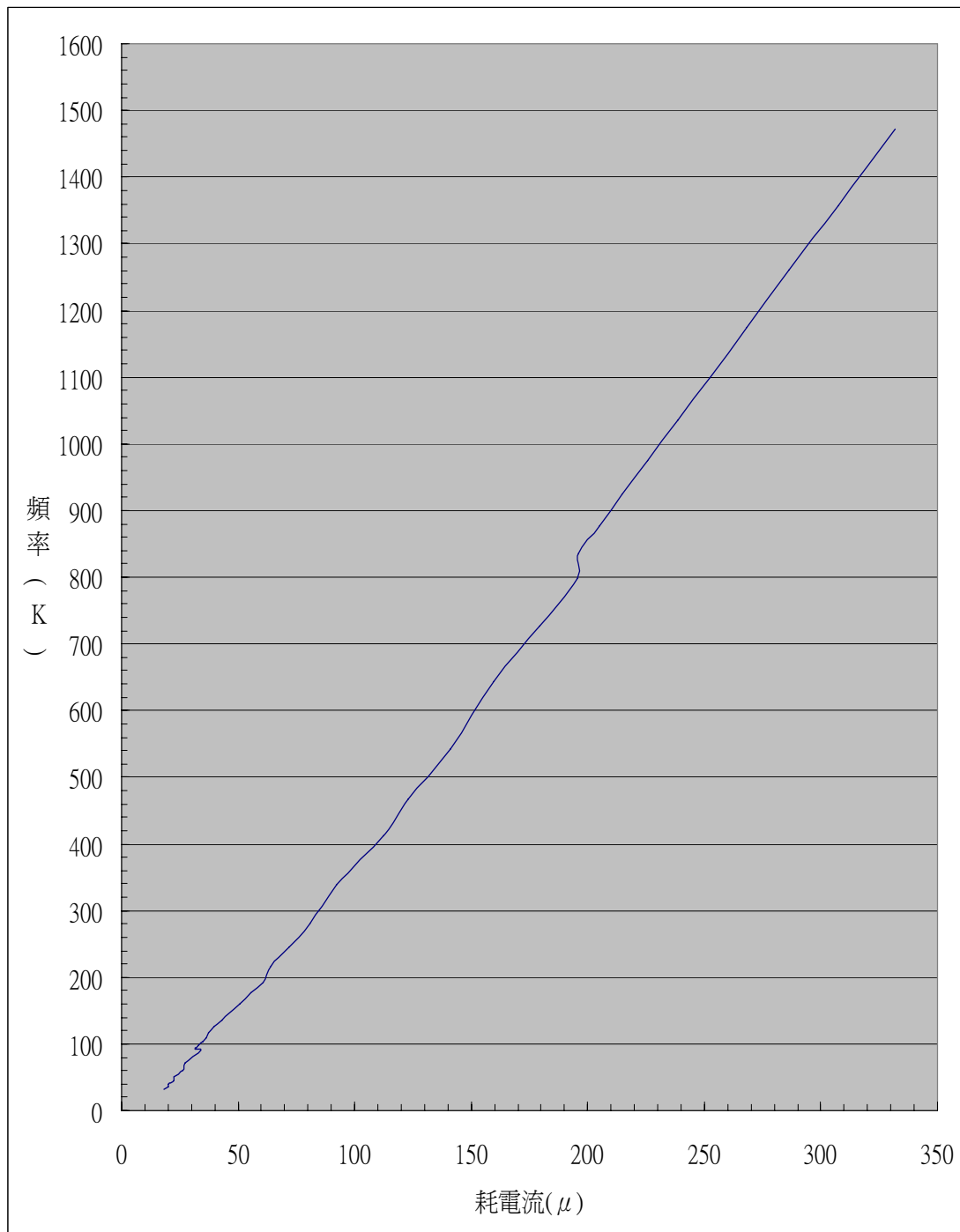
At 3V, 25°C

Ext-R vs. Frequency

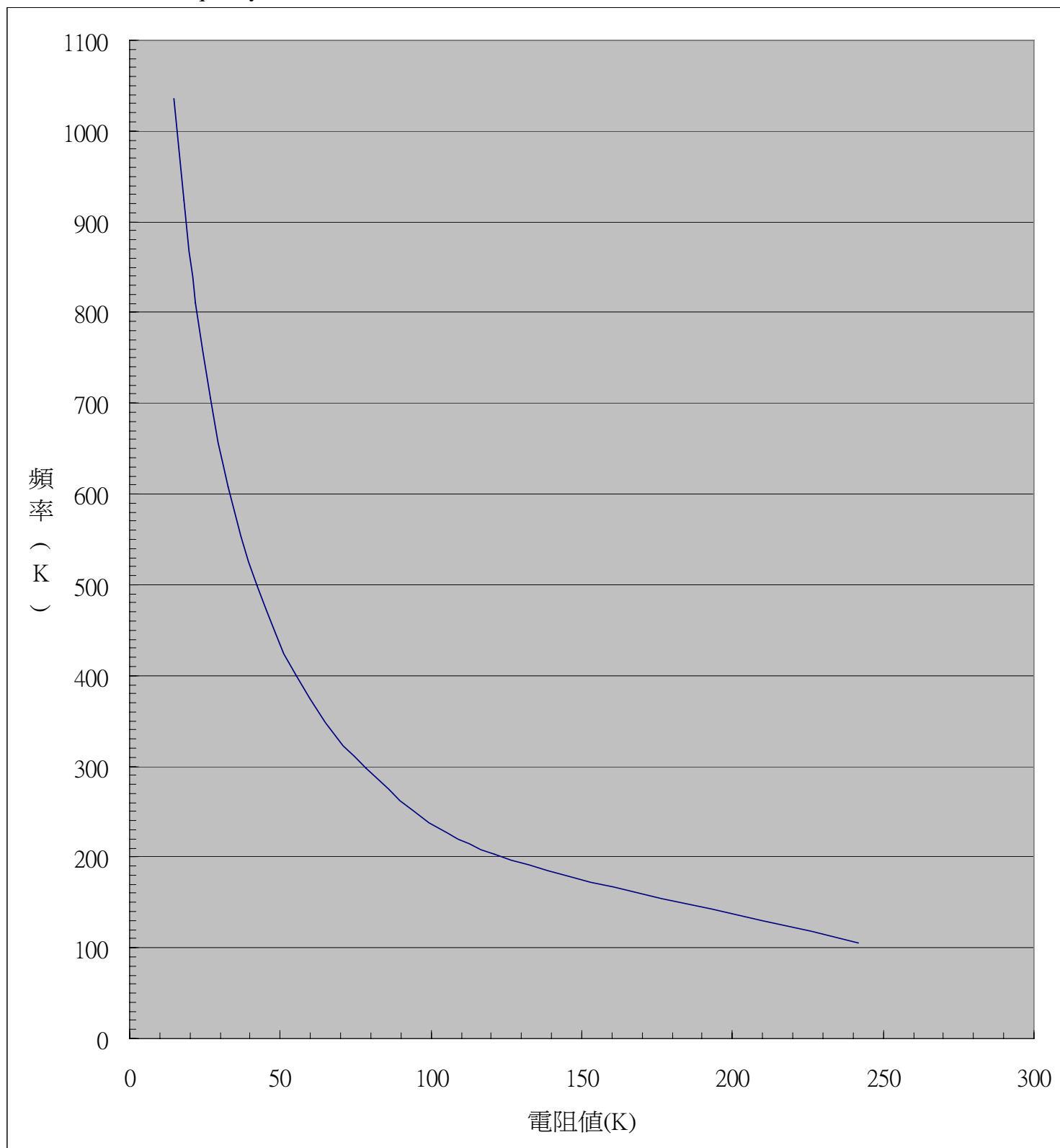


At 3V, 25°C

Frequency vs. Operation Current

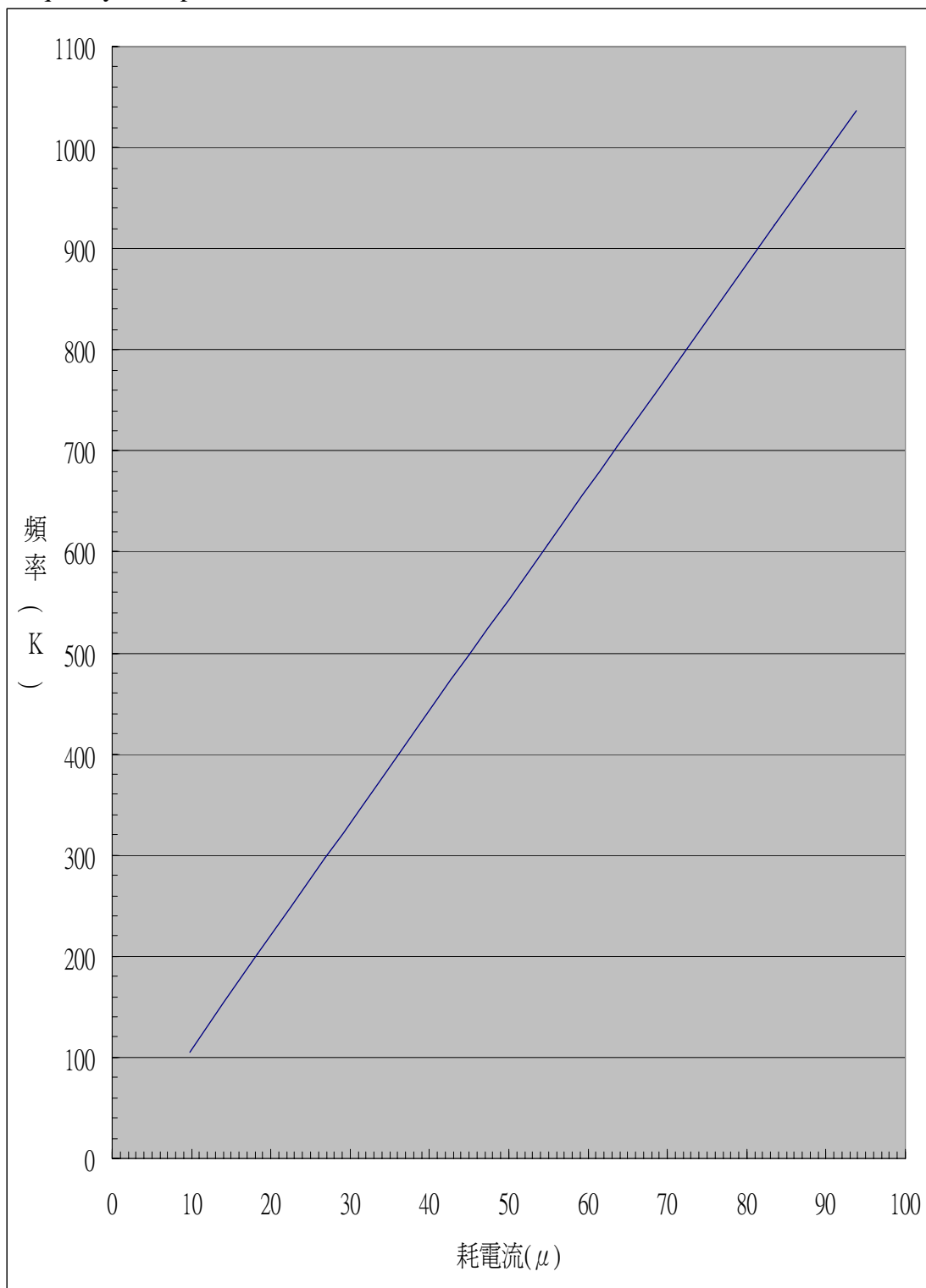


At 1.5V, 25°C
Ext-R vs. Frequency



At 1.5V, 25°C

Frequency vs. Operation Current



三. Slow RC vs. 32768Hz

At 3V , 25°C : 200pF and 109 KΩ

At 1.5V , 25°C : 200pF and 88 KΩ