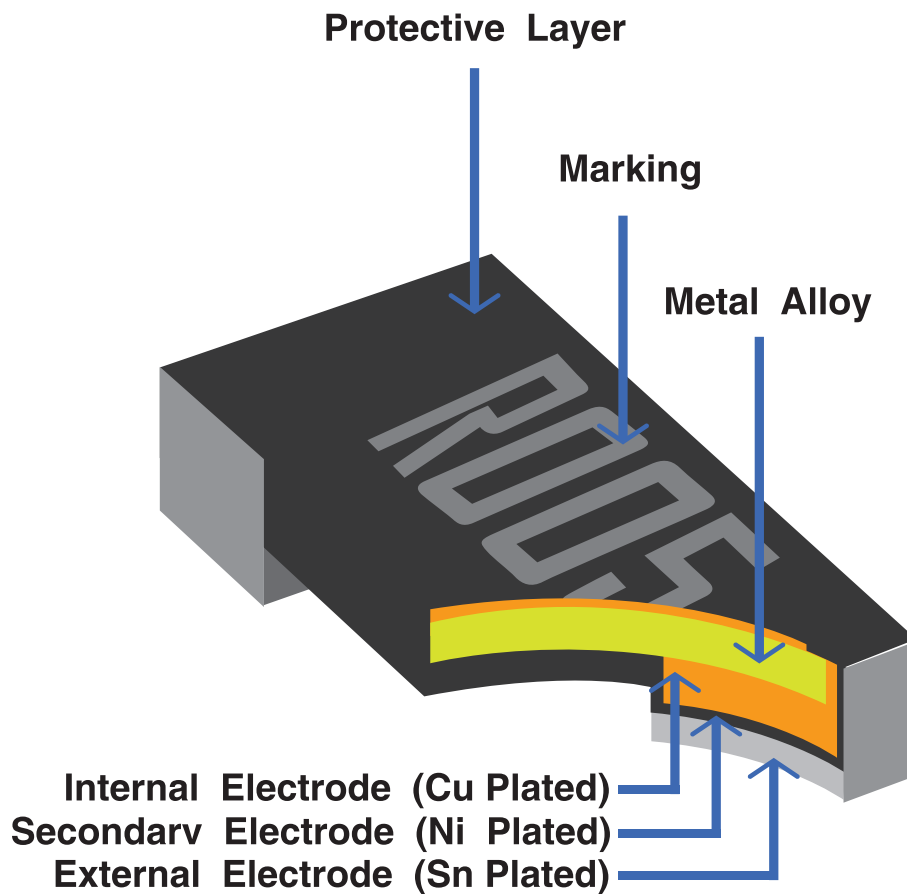




致強科技股份有限公司
Fort Technology Co.,LTD

High Power Current Sensing Resistor





Product Features

Applications include current sensing, voltage division and pulse applications
應用範圍包括電流感應、分壓及脈衝應用

Suitable for high precision current sensing circuit protection application
適用於高精度的電流感應器，能應用於產品的保護

The resistive material stable and ultra low TCR. Low and Stable TCR $\leq \pm 50 \text{ ppm}/^\circ\text{C}$
穩定的合金板材料可以提供穩定且低的溫度係數，穩定且低的溫度係數可控制於 $\leq \pm 50 \text{ ppm}/^\circ\text{C}$

Specially selected and stabilized materials allow for high temperature derating to + 170 °C
精心挑選並穩定材料允許高溫降額至 + 170 °C

Pure tin plating provides compatibility with lead (Pb) free and lead containing soldering processes

產品電極端使用純錫電鍍，適合於無鉛和含鉛的焊接製程

Excellent stability ($|\Delta R/R| \leq \pm 1.0\%$ for 1000 h at 70 °C) different environmental conditions
在不同的環境下有極佳的穩定度，誤差值 $\pm 1.0\%$ ，當產品處於70度C/1000小時下

Compliant to RoHS directive 2002/95/EC and Halogen free
符合RoHS指令2002/95/EC指令與無鹵的要求

Flame retardant type material is used to meet UL94 V-0 requirements
不燃型材料符合 UL94 V-0 的要求

Product Specifications

Type類別	# of Terminals 電極端數目	Max. Rating Power 最大額定功率(W)	Max. Rating Current 最大額定電流(A)	Max. Overload Current 最大過負載電流(A)	TCR (ppm/°C) 溫度系數	Resistance Range (mΩ)* 電阻值範圍		Operating Temperature 操作溫度
						D (±0.5%)	F (±1%); G (±2%); J (±5%)	
CUM0805	2	0.75	15.81	31.62	≤±50	10.0~100.0	3.0~100.0	-55~+170°C
		1	18.26	36.51		10	3.0~10.0	
CUM1206		0.5	3.13	6.26		51.0~100.0	51.0~100.0	
		0.75	5.98	11.95		21.0~50.0	21.0~50.0	
CUM2010		1	31.62	63.25		7.0~100.0	1.0~100.0	
		0.75	3.25	7.27		71.0~100.0	71.0~100.0	
		1	5.68	12.7		31.0~70.0	31.0~70.0	
CUM2512		1.5	38.73	77.46		7.0~100.0	1.0~100.0	
		1	44.72	100		7.0~680.0	0.5~680.0	
		2	63.25	141.42		7.0~450.0	0.5~450.0	
		3	77.46	134.16		7.0~100.0	0.5~100.0	
CUM2725		4	126.49	252.98		--	0.25~3.0	
CUM2728		4	31.62	54.77		7.0~600.0	4.0~600.0	
CUM2817		3	54.77	109.54		7.0~200.0	1.0~200.0	
CUM4527		3	2.45	4.24		501m~1.0R	501m~1.0R	
		5	70.71	122.47		7.0~500.0	1.0~500.0	
HPR1206	2	1.5	38.73	67.08	≤±50	7.0~100.0	1.0~100.0	-55~+170°C
PR1263	4	8	63.25	100	≤±25	2.0, 3.0,4.0	±1.0%	-55~+150°C
PR8447		3	38.73	61.24		5.0,6.0,7.0	±0.5%	-55~+140°C
PR8457		5	50	79.06		8.0,9.0,10.0		

Type類別	# of Terminal s電極端數目	Rating Power at 70C 額定功率在攝氏70度(W)	Max. Loading Current 最大過負載電流(A)	Resistance (mΩ) 電阻值	Operating Temperature 操作溫度
CPM1206	2	0.5	50	0	-55~+150°C
CPM2512		2	100		
CPM2817		3	122		
CPM2725		4	140		
CPM4527		5	158		

“*” Special tolerance and range of resistance are under requested
如需特殊的公差和阻值請與我們聯絡

SMD Metal Alloy Current Sensing Resistors

致強阻值表

List of resistance value

"\" =not-available

"O" =available

These spec are with tolerance 1%. The listed spec is already demanded. [Please contact with us for any spec not listed here for its availability.](#) Customized spec could be discussed if feasible q'ty is considered.

CUM0805			CUM1206				HPR1206		CUM2010			
阻值 resistance value (mΩ)	0.75W	1W	阻值 resistance value (mΩ)	0.5W	0.75W	1W	阻值 resistance value (mΩ)	1.5W	阻值 resistance value (mΩ)	0.75W	1W	1.5W
3		O	1			O	1	O	1			O
5		O	1.5			O	2	O	2			O
10		O	2			O	3	O	3			O
15	O		2.5			O	4	O	4			O
20	O		3			O	5	O	5			O
43	O		4			O	6	O	6			O
			5			O	7	O	7			O
			6			O	8	O	8			O
			7			O	10	O	10			O
			8			O	15	O	15			O
			10			O	20	O	20			O
			15			O	25	O	25			O
			20			O	30	O	30			O
			25		O	O	35	O	40			O
			30		O	O	40	O	50		O	O
			35		O	O	50	O	60		O	O
			40		O	O	60	O	70		O	O
			50		O	O	70	O	80	O		O
			60	O		O	80	O	100	O		O
			70	O		O	100	O				
			80	O		O						
			100	O		O						

CUM2512				CUM2817		CUM2725		CUM2728		CUM 4527		
阻值 resistance value (mΩ)	1W	2W	3W	阻值 resistance value (mΩ)	3W	阻值 resistance value (mΩ)	4W	阻值 resistance value (mΩ)	4W	阻值 resistance value (mΩ)	3W	5W
0.5	O	O	O	1	O	0.25	O	4	O	0.5		O
1	O	O	O	2	O	0.5	O	5	O	1		O
1.5	O	O	O	3	O	1	O	6	O	1.5		O
2	O	O	O	4	O	1.5	O	7	O	2		O
3	O	O	O	5	O	2	O	8	O	3		O
4	O	O	O	6	O	2.5	O	10	O	4		O
5	O	O	O	7	O	3	O	15	O	5		O
6	O	O	O	8	O			20	O	6		O
7	O	O	O	10	O			25	O	7		O
8	O	O	O	15	O			30	O	8		O
10	O	O	O	20	O			40	O	10		O
15	O	O	O	25	O			50	O	15		O
20	O	O	O	30	O			60	O	20		O
25	O	O	O	40	O			65	O	25		O
30	O	O	O	50	O			70	O	30		O
40	O	O	O	60	O			80	O	40		O
50	O	O	O	70	O			100	O	50		O
60	O	O	O	80	O			120	O	60		O
65	O	O	O	90	O			150	O	70		O
70	O	O	O	100	O			180	O	80		O
80	O	O	O	120	O			200	O	100		O
100	O	O	O	150	O			220	O	120		O
120	O	O		180	O			250	O	150		O
135	O	O		200	O			270	O	180		O
150	O	O						300	O	200		O
180	O	O						330	O	220		O
200	O	O						360	O	250		O
220	O	O						400	O	300		O
250	O	O						430	O	330		O
300	O	O						470	O	360		O
330	O	O						500	O	400		O
360	O	O						560	O	430		O
400	O	O						600	O	470		O
430	O	O								500		O
470	O									560	O	
500	O									600	O	
560	O									680	O	
600	O									750	O	
680	O									820	O	
										1000	O	

Design and spec are subject to change without prior notice.
Please feel free to refer to datasheet for more details.



Power Derating Curve

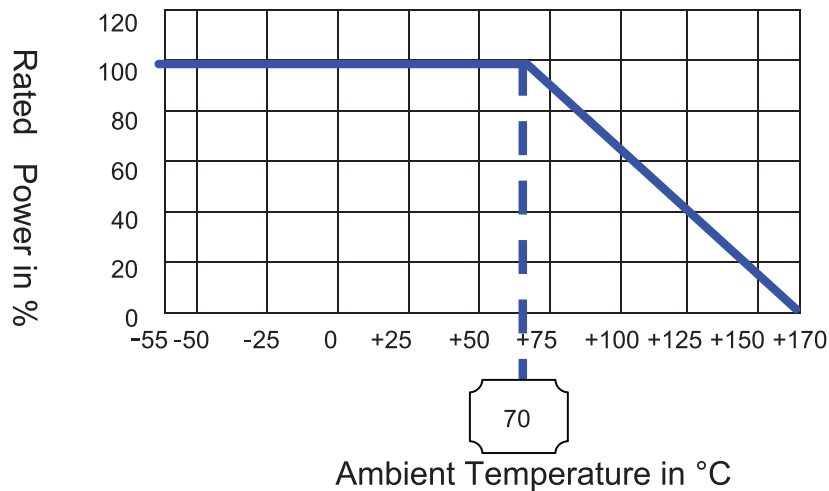
功率減額曲線

- The Operating Temperature Range $-55^{\circ}\text{C} \sim +170^{\circ}\text{C}$.

溫度範圍： $-55^{\circ}\text{C} \sim +170^{\circ}\text{C}$.

- For resistors operated in ambient temperatures above 70°C , power rating must be derated in accordance with the curve below

當電阻工作在溫度超過 70°C ，額定功率必須減額，減額曲線依據下圖



Ordering Information

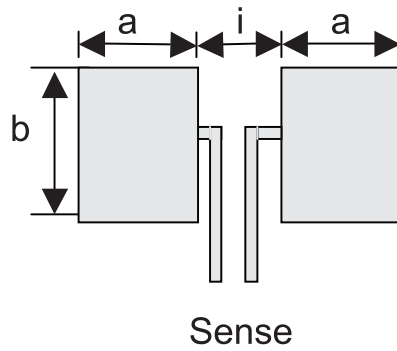
訂購訊息

Model (種類)	Size (尺寸)	Power Rating (Watts) 額定功率	Packing 包裝	Tolerance 公差	Resistance 電阻值
CUM	1206 2010 2512 2725 2728 2817 4527	<ul style="list-style-type: none"> B: 0.5W C: 0.75W 1: 1.0W D: 1.5W 2: 2.0W 3: 3.0W 4: 4.0W 5: 5.0W 	<ul style="list-style-type: none"> A: 500pcs 1: 1,000pcs 2: 2,000pcs 4: 4,000pcs 5: 5,000pcs 	<ul style="list-style-type: none"> D=±0.5% F=±1.0% G=±2.0% J=±5.0% 	e.g.: R003:3mΩ R100:100mΩ



Recommended Land Pattern

建議印刷電路版上焊墊的尺寸



Type 型別	Maximum Power Rating (Watts) 最大額定功率	Resistance Range (m) 電阻值範圍	Dimensions - in inches (millimeters) 尺寸-英吋 (公釐)		
			a	b	i
CUM1206	0.5 & 0.75 & 1.0	1.0 ~ 100.0	0.063 (1.60)	0.086 (2.18)	0.026 (0.66)
CUM2010	0.75 & 1.0 & 1.5	1.0~3.0	0.114 (2.89)	0.115 (2.92)	0.048 (1.22)
		3.1~100	0.090 (2.29)	0.115 (2.92)	0.095 (2.41)
CUM2512	1.0 & 2.0 & 3.0	0.5 ~ 1.5	0.120 (3.05)	0.145 (3.68)	0.050 (1.27)
		2.0 ~ 3.5	0.083 (2.11)	0.145 (3.68)	0.125 (3.18)
		3.6 ~ 680	0.075 (1.90)	0.145 (3.68)	0.138 (3.50)
CUM2725	4.0	0.25 ~ 0.5	0.125 (3.18)	0.270 (6.86)	0.052 (1.32)
		1.0 ~ 3.0	0.092 (2.34)	0.270 (6.86)	0.118 (3.00)
CUM2728	4.0	4.0~600	0.108 (2.75)	0.308 (7.82)	0.138 (3.51)
CUM2817	3.0	1.0~3.0	0.108 (2.75)	0.308 (7.82)	0.138 (3.51)
		3.5~200	0.096 (2.45)	0.308 (7.82)	0.122 (3.11)
CUM4527	3.0 & 5.0	1 ~ 3.0	0.177 (4.50)	0.344 (8.74)	0.177 (4.50)
		3.5 ~ 100	0.134 (3.40)	0.344 (8.74)	0.292 (6.43)
		101~1.0R	0.115 (2.93)	0.344 (8.74)	0.300 (7.63)

Current Jumper Chip Resistor

- Ordering Information:

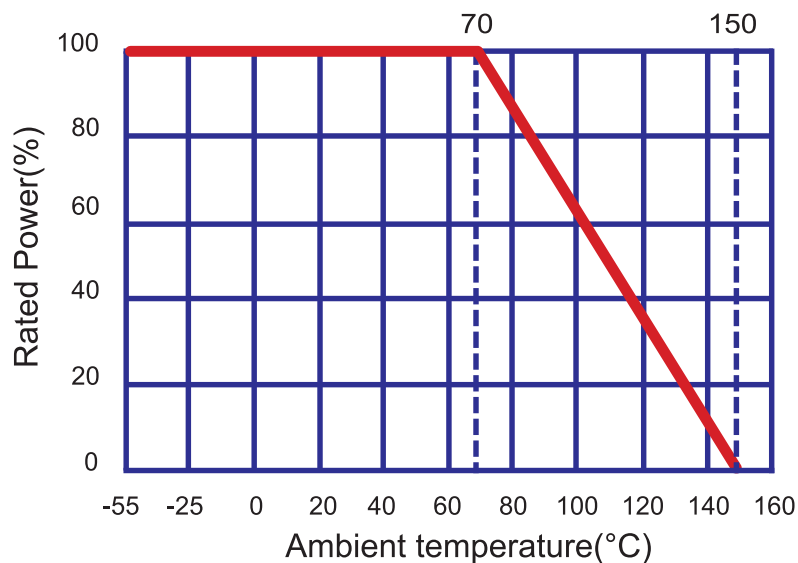
Type	Size (inch)	Rated Power	Packaging	Resistance Tolerance	Nominal Resistance
Current Jumper Chip Resistor	1206	B = 0.5 W	A= 500pcs	<0.20mΩ	R000 = Below 0.20mΩ
	2512	2= 2.0 W	1=1,000pcs		
	2817	3= 3.0 W	2=2,000pcs		
	2725	4= 4.0W	4=4,000pcs		
	4527	5= 5.0W	5=5,000pcs		

- Product Specifications:

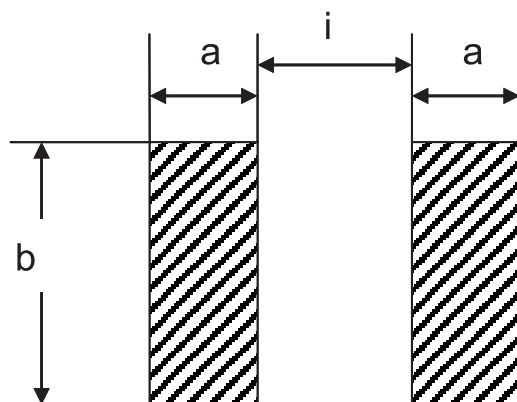
Type	Number of Terminals	Rated Power at 70°C	Max Loading Current	Resistance (mΩ)	Operating Temperature Range
CPM1206	2	0.5 W	50 A	0	- 55 ~ +150°C
CPM2512		2.0 W	100 A		
CPM2817		3.0 W	122 A		
CPM2725		4.0 W	140 A		
CPM4527		5.0 W	158 A		

- Power Derating Curve:

For resistors operated in ambient temperatures 70°C, power rating must be derated in accordance with the curve below:



- OR Recommend Land Pattern:



Type 型別	Maximum Power Rating (Watts) 最大額定功率	Dimensions - in inches (millimeters) 尺寸-英吋 (公釐)		
		a	b	i
CPM1206	0.5	0.040 (1.00)	0.075(1.90)	0.055(1.40)
CPM2512	2.0	0.083 (2.11)	0.145(3.68)	0.125(3.18)
CPM2725	4.0	0.092(2.34)	0.270(6.86)	0.118(3.00)
CPM2817	3.0	0.096 (2.45)	0.181(4.60)	0.122(3.11)
CPM4527	5.0	0.134(3.40)	0.344(8.74)	0.292(6.43)



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