

U型分流器电阻-USR Series

U-type Shunt Resistor – USR Series

特征 Features

精度±1%, ±0.5%	Tolerance ±1%、±0.5%
过电流能力强	Excellent current ability
电子束焊接工艺	Electron-beam welding
低热电动势 < 1μV/°C	Low thermal EMF < 1μV/°C
紫铜引脚易于锡焊	Copper pins easy to solder
符合RoHS、REACH要求	RoHS、REACH Compliant
特殊规格可以订做	Customizable



应用范围 Applications

电流采样	Current Sensing
驱动技术	Drive Technology
功率电子	Power Electronic
家电控制器	Home Appliance
通讯系统	Communication System

订购信息 Ordering Information

USR	-U	-100	-50	F	-X1
Product Type	Shape	Current:	Voltage	Tolerance:	Other:
USR UBH	U: U-shape M: M-shape	Unit: A	Unit: mV	J: ±5% G: ±2% F: ±1% D: ±0.5%	X1: Pin tinning

说明 Notice

适用范围 Scope

本承认书适用于深圳市业展电子有限公司 制造之[U型分流器电阻]。

This specification is available for U-type Shunt Resistors manufactured by Shenzhen Yezhan Electronics Co., Ltd.

标准试验状态 Standard measuring conditions

温度 $20\pm 2^{\circ}\text{C}$ 、湿度 $65\pm 5\%$ 。但在温度 $5\sim 35^{\circ}\text{C}$ 、湿度 $45\sim 85\%$ 之情况下，仍可给予判定。

Temperature $20\pm 2^{\circ}\text{C}$, Humidity $65\pm 5\%$. Being no doubt about the judgment, measurements can be made within the following Temperature $5\sim 35^{\circ}\text{C}$, Humidity $45\sim 85\%$.

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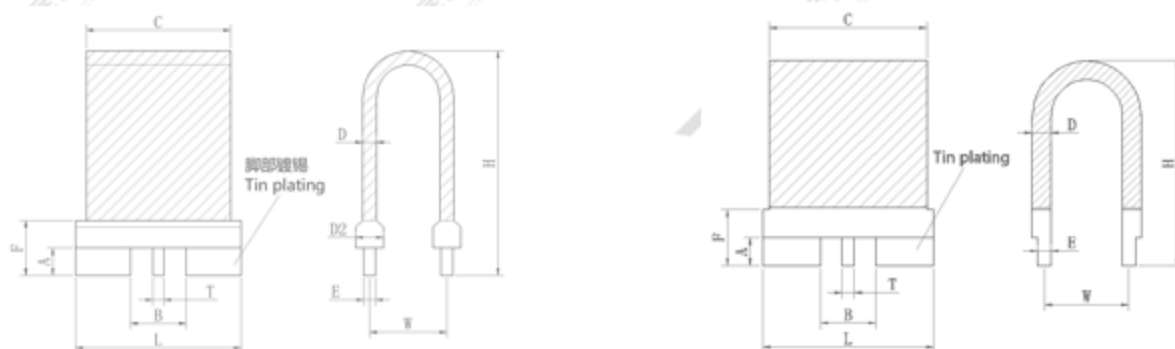
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产品尺寸 Products Dimension

Type	Data	L±0.2	W±0.5	D±0.1	C±1	H±2	A±0.2	B±0.1	T±0.1	E±0.1	F±1	D2±0.1
USR	40A 150mV	12	25	1	7	24	3	5.8	1.2	1.3	6	3
	40A 100mV	18	8.4	1.0	10	33	3	5.8	1.2	1.3	6	3
	50A 75mV	18	8.4	1.5	11	33	3	5.8	1.2	1.3	6	3
	50A 100mV	18	8.4	1.0	12.5	33	3	5.8	1.2	1.3	6	3
	65A 50mV	18	8.4	1.5	15.5	25	3	5.8	1.2	1.3	6	3
	75A 50mV	18	8.4	1.7	15.5	25	3	5.8	1.2	1.3	6	3
	100A 50mV	18	8.4	1.5	15.5	17	3	5.8	1.2	1.3	6	3
	100A 75mV	18	8.4	1.5	15.5	25	3	5.8	1.2	1.3	6	3
	100A 100mV	18	8.4	1.5	16.5	33	3	5.8	1.2	1.3	6	3
	200A 100mV	18	10.5	3.0	16.5	34	3	5.5	1.4	1.5	6	4

USR

UBH

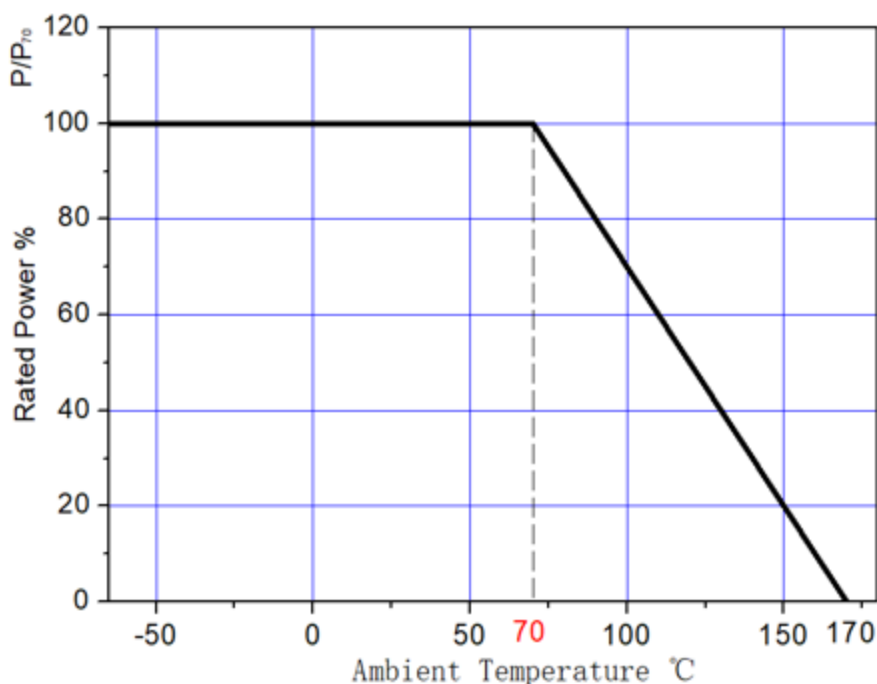


Type	Data	L±0.2	W±0.5	D±0.1	C±1	H±2	A±0.2	B±0.1	T±0.1	E±0.1	F±1
UBH	45A 45mV	12	8.4	1.2	11	20	3	5.8	1.4	1.2	6
	80A 40mV	15	6.4	2.0	14	22	3	5.8	1.4	1.5	6
	100A 50mV	18	10.5	2.0	17.2	24	3	6	1.4	1.4	6
	100A 100mV	18	8.4	1.0	18	24	3	6	1.2	1.0	6
	200A 75mV	18	8.4	3.0	17	26	3	5.5	1.4	1.5	6
	300A 75mV	18	10.5	3.0	17.5	20	3	6	1.4	1.5	6

» 技术参数 Technical Data

Type	USR/UBH
Resistance(Unit: mΩ)	0.1~10
Tolerance	±0.5%、±1%、±2%、±5%
Recommended applicable temperature range	-65°C to +170°C
Rated current (Unit: A)	5~300
Temperature coefficient (20°C~120°C) (Unit: ppm/°C)	±50、±100
Material	Manganin / Karma

降功率曲线 Power Derating



» 耐久性测试 Endurance Test

Items	Additional Requirements	Reference	Limits
Operational Life	Condition D Steady State TA=70°C at rated power.	MIL-STD-202 Method 108	±0.5%
High Temperature Exposure	1000hrs.@T=170°C.Unpowered.	MIL-STD-202 Method 108	±0.5%
Biased Humidity	1000hrs 85°C/85%RH. Note: Specified conditions:10% of operating power.	MIL-STD-202 Method 103	±0.5%
Temperature Cycling	1000 Cycles (-55°C to +150°C)	JESD22 Method JA-104	±0.5%
Solderability	245°C±5°C,5s±0.5s	MIL-STD-202 Method 208H	95% Coverage Minimum
Short Time Overload	5×Rated power for 5s.	MIL-STD-202 Method 201	±0.5%
Resistance to Soldering Heat	260°C±5°C, 10s±1s.	MIL-STD-202 Method 210	±0.5%
Mechanical Shock	100g , 6ms , axes ±X 、 ±Y and ±Z, 3 Shocks per axis, total 18 times.	MIL-STD-202 Method 213	±0.5%
Vibration	(10 - 2000 Hz) ,5 g's for 20 min, 12 cycles each of 3 axis.	MIL-STD-202 Method 204	±0.5%

» 印字标识 Marking

100A 50mV

100A: 电流100A 50mV: 电压50mV

» 包装 Packaging

散装或盘装 In Bulk or tray

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版本信息 Version History

版本 Version	日期 Date	修订描述 Description of amendment	签名 Signature	审核 Checked
A1.0	22-Sept-2022	首版发行	邓小辉	胡紫阳
A1.1	30-May-2023	产品名称描述更新	邓小辉	胡紫阳