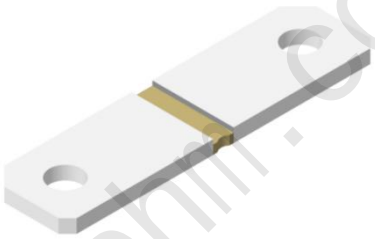
E-beam welding flat shunt

For high current signal sampling，tolerance down to ±0.5%

AEC-Q200 qualified,high stability，ultra-low thermal EMF and TCR

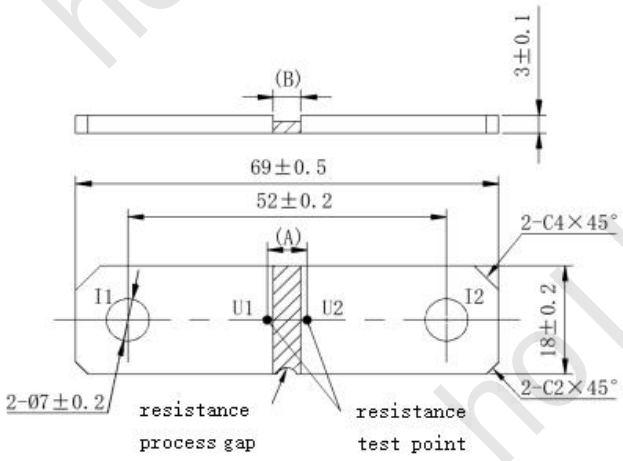


Features:

- the flat shunt with grooves is suitable for PCB soldering sample
- stable electron-beam welding structure
- high reliability and stability ,superb pulse load capability
- shunt with tinned terminals or shunt without tinned terminals
- maximum tightening torque is 10N
- RoHS compliant
- customization

parameter:	
resistance value	50 μΩ 、100 μΩ 、125μΩ
tolerance	± 1%，± 5%
temperature range	-55℃ to+170℃
internal heat resistance (Rthi)	2K/W
thermal EMF	<1μV/℃
inductance	<5nH

Dimensions(mm):



https://holly-ohm.com

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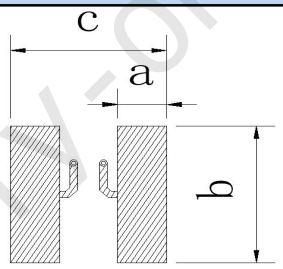
Resistance value (μΩ)	power (W)	TCR	B	A
50	36	±125ppm/℃	4.5±0.3	6.5±0.2
100	36	±100ppm/℃	8±0.3	10±0.2
125	20	±100ppm/℃	10±0.3	12±0.2

Type Designation(example): HYCS6918L050J00 HYCS6918 0.05mΩ 5% standard

H	Y	C	S	6	9	1	8	L	0	5	0	J	0	0

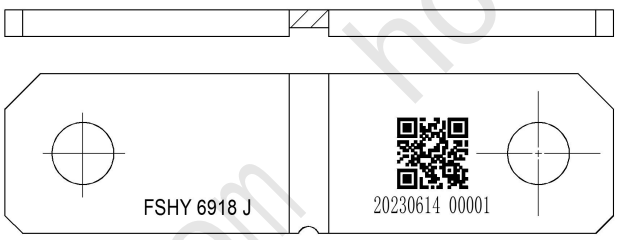
- HYCS: HYCS shunt
- Size: 6918
- Resistance value: L050 = 0.05mΩ; L100=0.1mΩ; L125=0.125mΩ
- tolerance: F=±1%; J=±5%
- Code: 00: standard; XX: customization

Recommended pad: (mm)



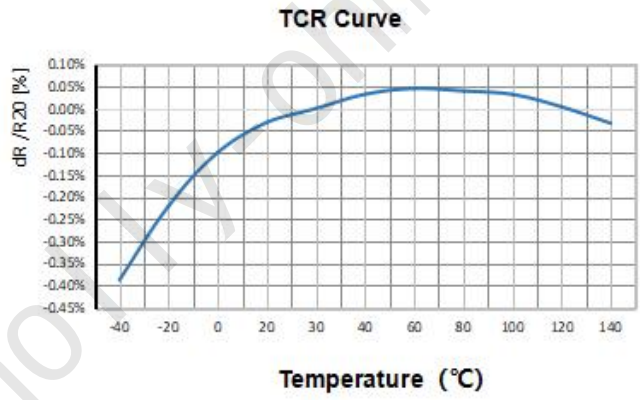
Resistance value	a (mm)	b (mm)	c (mm)
50 μΩ	4	18	12
100 μΩ	4	18	15.6
125 μΩ	4	18	17.6

QR code rules:

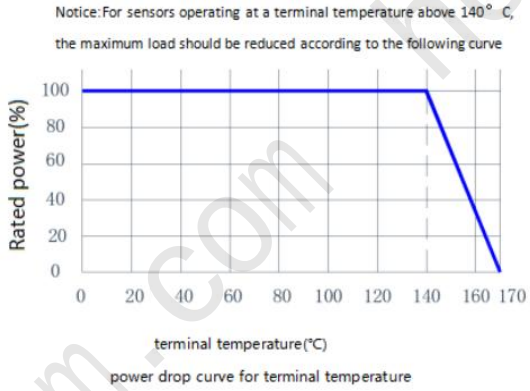


QR code content	FSHY20230613-0105R49895n				
	FSHY	20230613-0105		R49895n	
	supplier	batch number		resistance value(nΩ)	
Plaintext content	FSHY	6918	J	20230614	00001
	supplier	model size	tolerance	production date	serial number

TCR Curve for shunt



Derating Curve

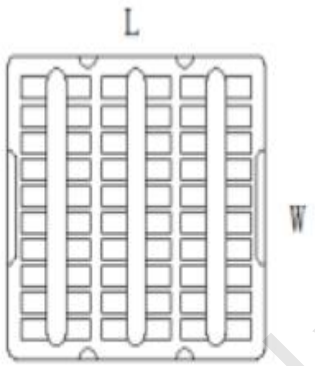


Performance:

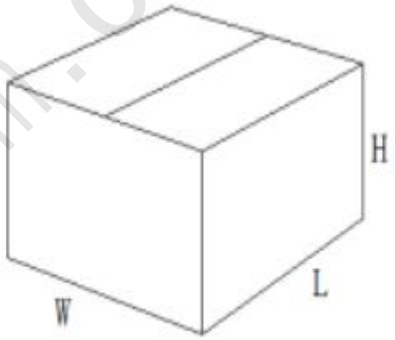
Test Item	standard	Test method
TCR	Within specified TCR	IEC60115-1 4.8，measured point-40°C～+140°C，reference point+20°C
Resistance to soldering heat	No visible damage △R±0.5% Maximum	IEC60115-1 4.18，260°C tin bath，10s
load life	No visible damage △R±1.0% Maximum	IEC 60115-1 4.25.1，1000hrs.， 70℃±2℃，rated current, or the maximum current rating of the component (whichever is lower) is applied for 1.5 hours/0.5 hour interruption
High temp. & high humidity	No visible damage △R±1% Maximum	Applying 10% of the rated power (current) or the limiting current of the component (whichever is lower) for a duration of 1000 hours in a temperature of 85°C and a humidity of 85% according to MIL-STD-202 method 103
temperature cycle	No visible damage △R±1% Maximum	IEC60115-1 4.19，-55°C@30mins～+155°C@30mins,1000 cycles
High temperature storage	No visible damage △R±1% Maximum	IEC60115-1 4.25.3，1000hours@170°C，without loading current and voltage
Low temperature load	No visible damage △R±0.5%Maximum	IEC60115-1 4.36，cooled from room temperature to -55°C ,no load for 1.5 hours,applying rated power,continuously flowing for 45 minutes,cool for 15 minutes，then recover to room temperature for testing again.

vibration	No visible damage △R≤±0.5% Maximum	MIL-STD-202 Method 204 peak acceleration：5g（gravity acceleration) frequency varied：（10~2000Hz) test direction：X、Y、Z direction，12 cycles in each direction ， each cycle 20min，total about 12h
Impact test	No visible damage △R≤±0.5% Maximum	MIL-STD-202 Method 213 Impact acceleration：100g(gravity acceleration) Impact pulse width：6ms Impact waveform：half sine wave Impact direction：±X, ±Y, and ±Z directions each 3 times

specifications and measurements of the packaging(mm):



tray



carton

specification	pieces/layers	L（mm)	W（mm)	H（mm)
tray	30pcs	350	350	15
carton	9 layers	360	360	150

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version update record

Version NO.	update record	person in charge	Issue date
A0	updated version release	Fameng Hong	14Oct2023