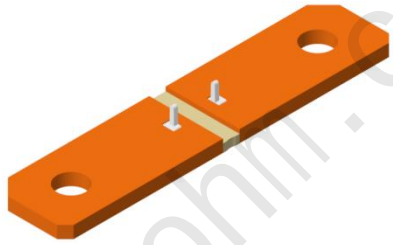
Shunt With Pin

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

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

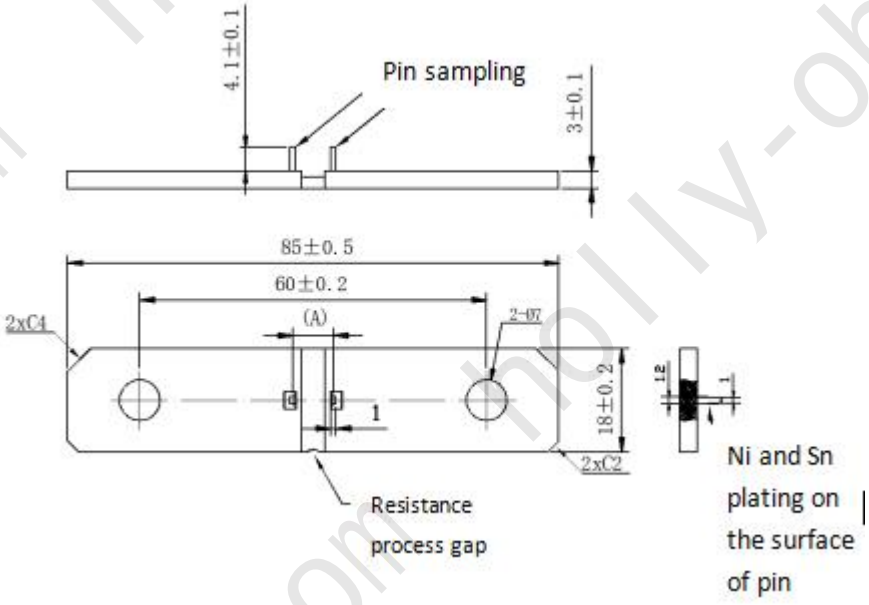


Features:

- determining the sampling location of Pin-type shunt resistors can be used for temperature drift compensation, suitable for accurate sampling in PCB boards that are welded
- electron-beam welding
- 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	50μΩ、100μΩ 、125μΩ、 250μΩ
tolerance	±1%(F),±5% (J)
temperature range	-55℃~+170℃
internal heat resistance (Rthi)	2℃/W
thermal EMF (0-60℃)	<1μV/℃
inductance	< 5nH

Dimensions(mm):



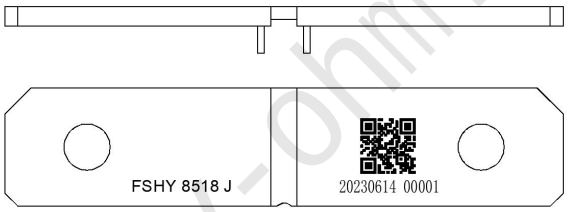
resistance value（μΩ）	power（W）	TCR	A
50	36	±125ppm/℃	7.0±0.2
100	36	±100ppm/℃	13.5±0.2
125	20	±100ppm/℃	15.8±0.2
250	12	±100ppm/℃	26.1±0.2

Type Designation(example)：HYCS8518 L050J2P　　HYCS8518 0.05mΩ 5%2pin

H	Y	C	S	8	5	1	8	L	0	5	0	J	2	P

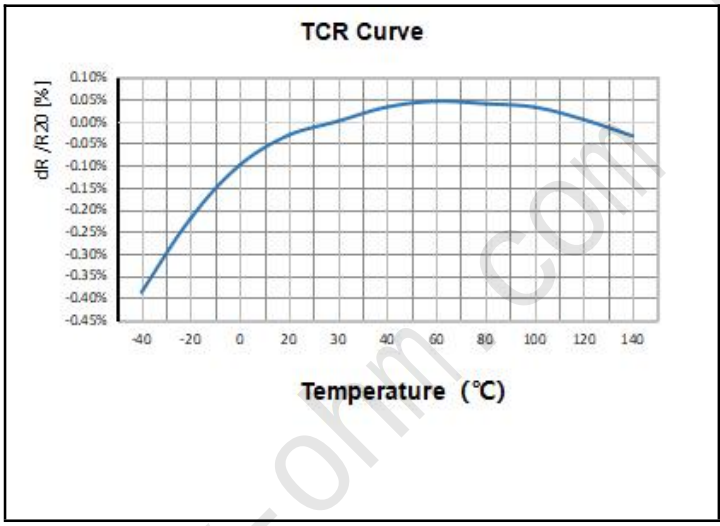
- HYCS: Flat shunt
- Size: 8518
- Resistance value: L050 = 0.05mΩ, L250=0.250mΩ
- Tolerance: J=±5%, F=±1%
- Code: 2Pin：2pins, xxx：customization

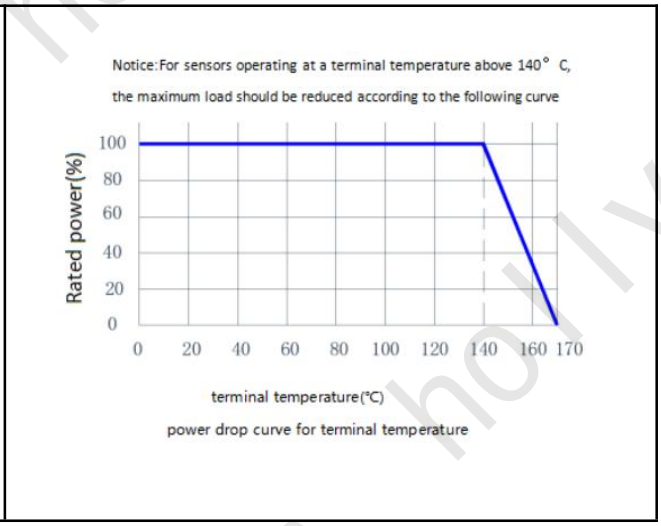
QR code rules:



QR code content	example：FSHY20230613-0001R99890n				
	FSHY	20230613-0001		R99890n	
	supplier	batch no.		**Resistance value(unit：nΩ)**	
plaintext content	FSHY	8518	J	20230614	00001
	supplier	Model size	tolerance	Production date	Serial number

TCR Curve:	Derating Curve

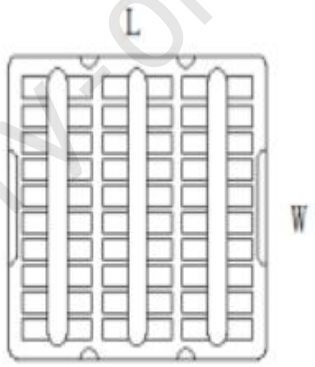




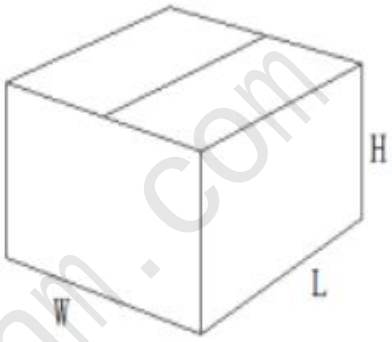
Performance:		
Test Item	**standard**	**Test method**
TCR	Within specified TCR	IEC60115-1 4.8，measured point-40°C～+140°C，reference point+20°C
Resistance to soldering heat	No visible damage △R±0.5% Maximum	IEC60115-1 4.18，260°C tin bath，10s
load life	No visible damage △R±1.0% Maximum	IEC 60115-1 4.25.1，1000hrs.， 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 maximum 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(unit:mm)



tray



carton

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

Disclaimer:

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version update record

Version NO.	update record	person in charge	Issue date
A0	updated version release	Fameng Hong	14Jun2023
A1	Updated performance metrics	Fameng Hong	07Oct2023