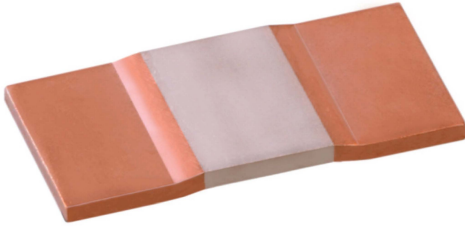


Chip Shunt Resistor



■ Features

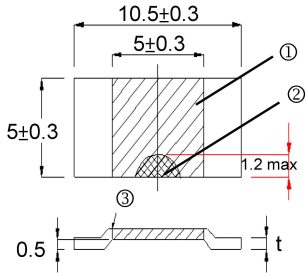
- LVS3921 5W up to 100A at 0.5mΩ
- LVE5931 7W up to 180A at 0.2mΩ
- Maximum soldering temperatures of up to 350°C / 30 sec.
- Heavy copper connectors
- Excellent long-term stability and low inductance
- Mounting using re-flow soldering or welding on copper

■ Applications

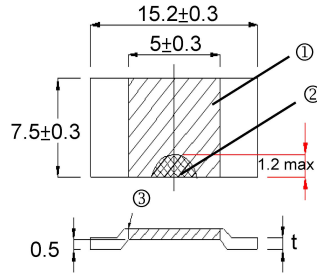
- Current sensors for hybrid power sources
- Frequency converters
- High current automotive

■ Construction

LVS3921



LVE5931



① Resistance Material	② Trimming Area	③ Electron Beam Welding
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■ Dimensions

Unit: mm

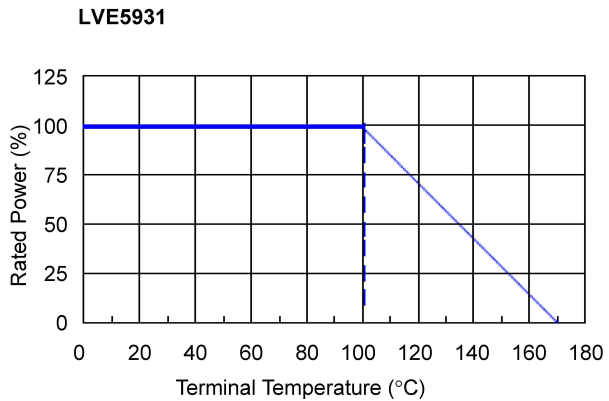
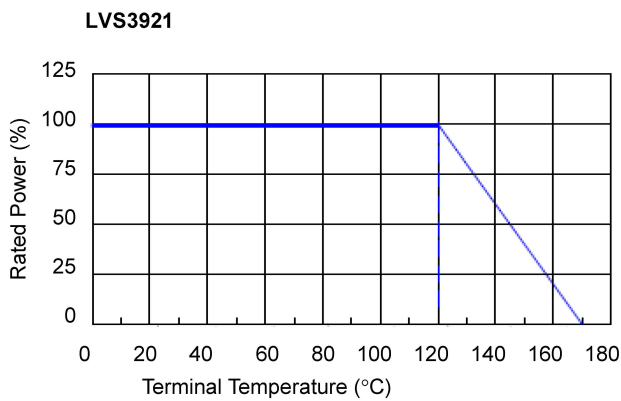
Type	Size	Value	Material	Thickness (t)	Weight (g) (1000pcs)
LVS3921	1050	0.5mΩ	Manganin	0.88 mm±0.1	420
LVS3921	1050	1mΩ	Manganin	0.43 mm±0.1	220
LVS3921	1050	2mΩ	NiCr alloy	0.64 mm±0.1	310
LVS3921	1050	3mΩ	NiCr alloy	0.43 mm±0.1	210
LVS3921	1050	4mΩ	NiCr alloy	0.32 mm±0.1	160
LVE5931	1575	0.2mΩ	Manganin	1.50 mm±0.1	590
LVE5931	1575	0.5mΩ	Manganin	0.56 mm±0.1	590
LVE5931	1575	1mΩ	NiCr alloy	0.90 mm±0.1	940
LVE5931	1575	2mΩ	NiCr alloy	0.45 mm±0.1	470
LVE5931	1575	3mΩ	NiCr alloy	0.30 mm±0.1	320

Chip Shunt Resistor

Part Numbering

LVS	3921	F	T	D	D	0M50	M
Product Type	Dimensions	Resistance Tolerance	Packaging Code	TCR (PPM/°C)	Power Rating	Resistance	Marking Code
	3921: 10.5x5.0 5931: 15.2x7.5	F: ±1% G: ±2% J: ±5%	T: Taping Reel B: Bulk	D: ±50 1: ±60 W: ±75 E: ±100 2: ±120	B: 2.5W R: 3W C: 3.5W H: 4W D: 5W I: 6W E: 7W	0M50: 0.5mΩ R001: 1mΩ R002: 2mΩ R003: 3mΩ R004: 4mΩ	M: Manganin N: NiCr alloy

Derating Curve



Standard Electrical Specifications

Type	Power Rating	Operating Temp. Range	Resistance Range			TCR (PPM/°C) (+20°C ~ +60°C)
			±1%	±2%	±5%	
LVS3921	5W	-55°C ~ +170°C	0.5mΩ			±75
LVS3921	4W		1mΩ			±50
LVS3921	4W		2mΩ			±100
LVS3921	3W		3mΩ			±100
LVS3921	2.5W		4mΩ			±100
LVE5931	7W		0.2mΩ			±100
LVE5931	6W		0.5mΩ			±100
LVE5931	6W		1mΩ			±100
LVE5931	4W		2mΩ			±100
LVE5931	3.5W		3mΩ			±100

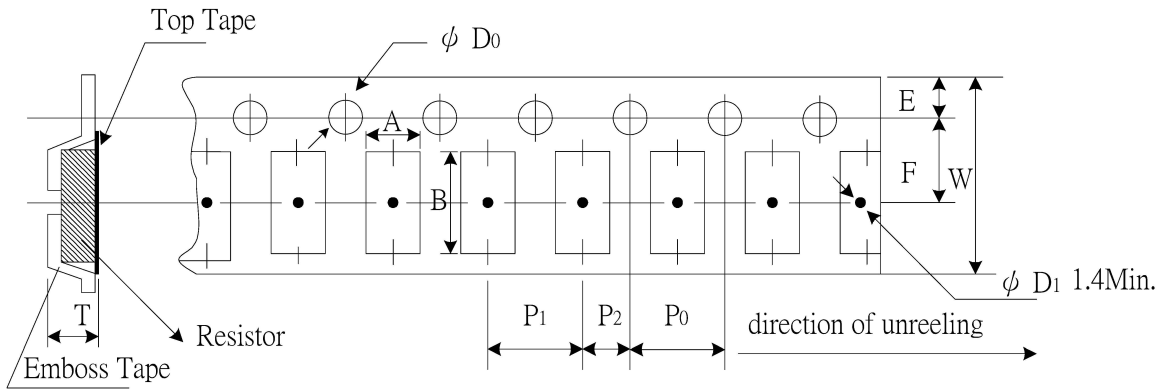
Environmental Characteristics

Item	Requirement	Test Method
Short time overload	±0.2%	Rated Power × 5 for 5 seconds
Load Life	±1.0%	90 min. "ON", 30 min. "OFF" for 2000 hours
Resistance to Soldering Heat	±0.5%	260°C for 10 min.
Thermal Shock	±0.1%	-65°C, 25°C, 125°C, 25°C, 25 cycles
Moisture Resistance	±0.2%	90 ~ 98%RH, +25°C, +65°C, -10°C, 10 cycles
High Temperature Exposure	±0.5%	140°C for 250 hours

Storage Temperature: 15~28°C; Humidity < 80%RH

Packaging

Emboss Plastic Tape Specifications



Unit: mm

Type	A	B	W	E	F	P ₀	P ₁	P ₂	ØD ₀	T	Quantity (EA)
LVS3921	5.7	11.2	16	1.75	7.5	4	12	6	1.50	1.2	3000
LVE5931	8.2	16.1	24	1.75	11.5	4	12	6	1.50	1.9	2000