

LPS Series Datasheet

Power Shunt Resistors | Radial Version
Current Sensor | Open Frame

ORDERING CODE-Example

New SAP Part Nr.:

LPS	250	J	V	-	RP-	R01	AA
Serie	Power rating	Tol.	Pack-Code	TCR	Forming type	* R Value	Special
		J = ±5%	V = Vacuum	- Base on spec.	RP- = Radial 1 Pin (10[mm] RM) RL- = Radial 1 Pin (15[mm] RM) RH- = Radial 2 Pin (15[mm] RM) CM- = Custom made		AA = Standard

*1 mΩ to 68 mΩ there are 4~5 digits indicated the resistance value. Letter R/L is decimal point
(R001 = R001, R0022 = 2L2, R0068 = 6L8)

Historical VTM Part Nr.:

LPS355 - 0	5	B	OR01
Type	Tol.	Pack-Code	R Value
LPS356 - 0	5	B	OR01
Type	Tol.	Pack-Code	R Value
LPS357 - 1	5	B	OR01
Type	Tol.	Pack-Code	R Value

APPLICATIONS

- Automotive
- Alternative Energy
- Home Appliances
- Charger
- Power Supply
- Industrial

FEATURES

- Very low inductance
- Open frame design
- Solderable terminals
- Customized design available
- RoHs & REACH Compliant

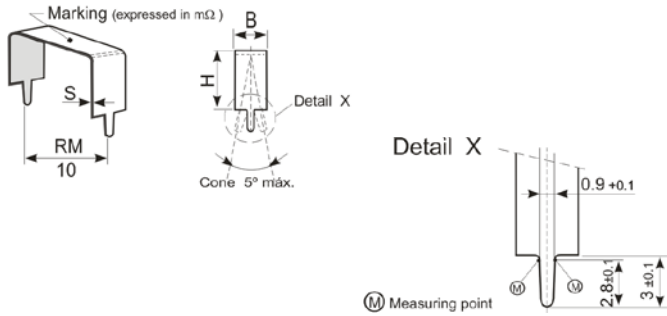
ELECTRICAL SPECIFICATIONS

Type / Forming type		LPS - RP	LPS - RL	LPS - RH
Historical Part Number		LPS355-0	LPS356-0	LPS357-1
Style		Existing styles upon request		
Nominal Power Rating P ₇₀		Depends on the value, please check the table below		
Resistance Range (Preferred values)	[Ω]	OR005, OR0068, OR01, OR015, OR022, OR033, OR047, OR051, OR068	OR001, OR0022, OR0033, OR005 OR0068, OR01, R015, R022, R033 (Other values upon request)	
E-Series (preferred)		E24 (Other upon request)		
Tolerances	±[%]	J = 5% (Others upon request)		
Temperature Coefficient	±[10 ⁻⁶ K ⁻¹]	-80 ... +40 / for CuNi44 (Others upon request)		
Working Temperature Range	[°C]	-55 ... +300		
Thermal Resistance	[KW ⁻¹]	280°C / P ₇₀		
Max. Working Voltage	[V] _{RMS}	$\sqrt{P_{70} \times R}$		
Dielectric Withstanding Voltage IEC115-1 clause 4.7 (1[min])	[V] _{RMS}	Non insulated		

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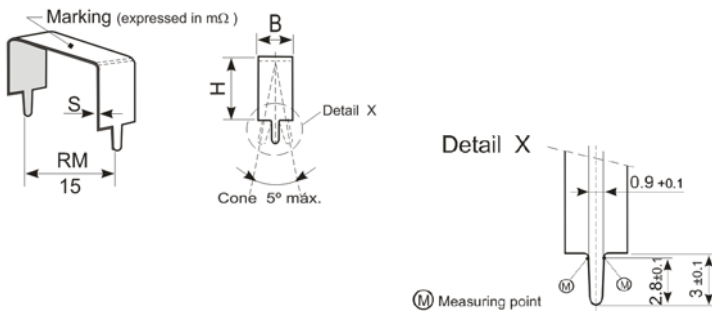
DIMENSIONS [mm] - LPS type

Type: LPS-RP



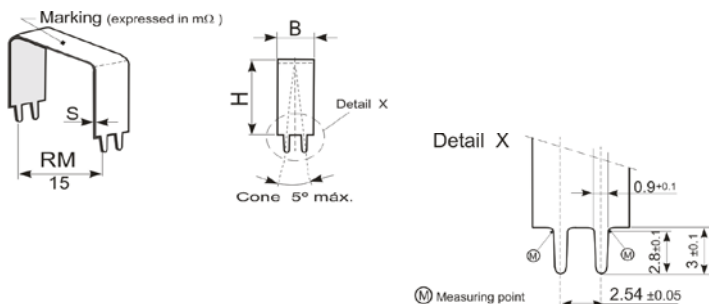
Type		Forming Type [RP]		Historical P/N:		
LPS		RP = Radial 1 Pin (10[mm] RM)		LPS355 - 0		
R-Value	Resistance values	Material	B	S	H max.	Rated Power [W]
R005	R005	CuNi44	5,0	0,7	13,5	2,2
R0068	6L8		4,0	0,8	17,5	2,1
R01	R01		4,0	0,5	16,0	2,0
R015	R015		4,0	0,3	14,0	1,8
R022	R022		4,0	0,2	14,0	1,8
R033	R033		3,0	0,2	16,0	1,5
R047	R047		2,0	0,2	15,0	1,0
R051	R051		2,0	0,2	16,5	1,0
R068	R068		2,0	0,2	23,0	1,4

Type: LPS-RL



Type		Forming Type [RL]		Historical P/N:		
LPS		RL = Radial 1 Pin (15[mm] RM)		LPS356 - 0		
R-Value	Resistance values	Material	B	S	H max.	Rated Power [W]
R005	R005	CuNi44	5,0	0,7	11,0	2,2
R0068	6L8		4,0	0,8	15,0	2,1
R01	R01		4,0	0,5	13,5	2,0
R015	R015		4,0	0,3	11,5	1,8
R022	R022		4,0	0,2	11,5	1,8
R033	R033		3,0	0,2	13,5	1,5
R047	R047		2,0	0,2	12,5	1,0
R051	R051		2,0	0,2	14,0	1,0
R068	R068		2,0	0,2	20,5	1,4

Type: LPS-RH



Type		Forming Type [RH]		Historical P/N:		
LPS		RH = Radial 2 Pin (15[mm] RM)		LPS357 - 1		
R-Value	Resistance values	Material	B	S	H max.	Rated Power [W]
R001	R001	CuNi23Mn	10,0	0,8	11,0	3,7
R0022	2L2		10,0	0,8	23,0	7,0
R0033	3L3	CuNi44	10,0	0,5	13,0	4,6
R005	R005		5,0	0,8	14,0	2,6
R0068	6L8		5,0	0,7	21,0	3,4
R01	R01		9,0	0,2	15,0	4,5
R015	R015		7,0	0,2	16,5	4,0
R022	R022		4,0	0,2	12,5	1,9
R033	R033		4,0	0,2	22,0	2,8

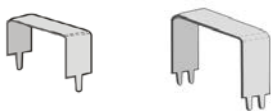
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PERFORMANCE DATE

Type		LPS - RP	LPS - RL	LPS - RH
Historical Part Number		LPS355-0	LPS356-0	LPS357-1
Derating Linear	[°C]	70...235 (0W)		
Climatic Category		55/350/56		
Failure Rate <i>(Total, θ_{j-c}, max, 60[%] cont. lev.)</i>	[$10^{-9} h^{-1}$]	0,1		
Endurance <i>IEC60115-1 clause 4.24 ($P_{70\%}$ @ 70[°C], 1000[h])</i>	±[%]	3,0		
Damp Heat, Steady State <i>IEC60115-1 clause 4.24 (40[°C], 93[% r.h.], 56[d])</i>	±[%]	0,5		
Climatic Sequence <i>IEC60115-1 clause 4.23 (260^{±5}[°C], 10^{±1}[s])</i>	±[%]	0,5		
Resistance to Soldering Heat <i>IEC60115-1 clause 4.18 (260[°C], 10[s])</i>	±[%]	0,2		
Terminal Strength	±[%]	n. a.		
Terminal Tensile Strength	[N]	n. a.		
Solderability <i>IEC60068-2-20 (245^{±5}[°C] 3^{±0,5}[s])</i>		Solder bath method (> 95% coverage) Suitable for wave - soldering		
Marking <i>IEC60062</i>		Value imprinted		

PACKAGING

The standard packaging for LPS type is Vacuum, dimensions below.



Type	Historical P/N:	Pack Code	Pieces	* Forming Type	Special
LPS - RP	LPS355 - 0	V = Vacuum	1000	RP-	AA = Standard
LPS - RL	LPS356 - 0		1000	RL-	
LPS - RH	LPS357 - 1		500	RH-	

* RP- Radial (1 Pin 10[mm] RM) ; RL- Radial (1 Pin 15[mm] RM) ; RH- Radial (2 Pin 15[mm] RM)

ALTERNATIVE LEAD CONFIGURATIONS

