

KPS Series Datasheet

Power Wirewound Resistors | Radial | Fiber glass core | coated

ORDERING CODE-Example

New SAP Part Nr.:

KPS	400	J	B	-	RD-	100R	LO
Serie	Power rating	Tol.	Pack-Code	TCR	Forming type	R Value	Special
		J = ±5% K = ±10%	B = Bulk	- Base on spec.	RD- Radial		LO = Pin long (old -0) SO = Pin short (old -1)

Historical VTM Part Nr.:

KP292 - 0	5	B	100R
Type	Tol.	Pack-Code	R Value
	±5% = J ±10% = K	B = Bulk	

KP292 - 1	5	B	100R
Type	Tol.	Pack-Code	R Value
	±5% = J ±10% = K	B = Bulk	

APPLICATIONS

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

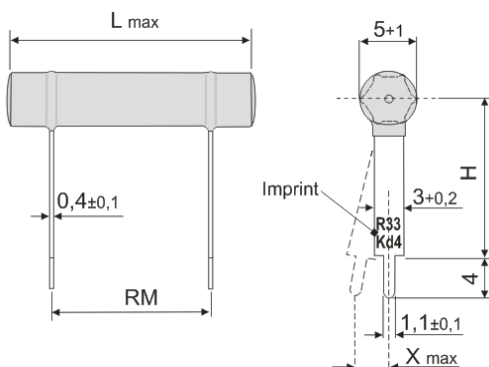
FEATURES

- PCB pluggable style
- Pulse version available
- RoHs & REACH Compliant

ELECTRICAL SPECIFICATIONS

Type		KPS200	KPS400	KPS500	KPS650	KPS800	
Historical Part Number	Pin long (L0)	KP290 - 0	KP292 - 0	KP294 - 0	KP296 - 0	KP298 - 0	
	Pin short (S0)	KP290 - 1	KP292 - 1	KP294 - 1	KP296 - 1	KP298 - 1	
Nominal Power Rating	P ₇₀	[W]	2,0	4,0	5,0	6,5	8,0
Resistance Range (Other values upon request)	[Ω]	Min.	Please check the table below				
		Max.	7K5	11K	20K	27K	36K
E-Series (preferred)		E24 = 5% ; E12 = 10% (Other upon request)					
Tolerances	±[%]	J = 5% ; K = 10%					
Temperature Coefficient	±[10 ⁻⁶ K ⁻¹]	Depends on the value, please check the table below					
Working Temperature Range	[°C]	-55 ... +350					
Thermal Resistance	[KW ⁻¹]	140	70	56	43	35	
Max. Working Voltage	[V] _{RMS}	$\sqrt{P_{70} \times R}$					
Dielectric Withstanding Voltage IEC115-1 clause 4.7 (1[min])	[V] _{RMS}	75					

DIMENSIONS [mm]



Type	Historical P/N:	L max.	RM	H	X max.
KPS200...LO	KP290 - 0	18,0	10 +1,0	17	3
KPS400...LO	KP292 - 0	23,3	15 +1,0		
KPS500...LO	KP294 - 0	33,4	25 +1,0		
KPS650...LO	KP296 - 0	43,5	35 +1,0		
KPS800...LO	KP298 - 0	53,7	45 +1,0		
KPS200...SO	KP290 - 1	18,0	10 +0,8	8	1,7
KPS400...SO	KP292 - 1	23,3	15 +0,8		
KPS500...SO	KP294 - 1	33,4	25 +0,8		
KPS650...SO	KP296 - 1	43,5	35 +0,8		
KPS800...SO	KP298 - 1	53,7	45 +0,8		

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PERFORMANCE DATE

Type		KPS200	KPS400	KPS500	KPS650	KPS800
Historical Part Number	Pin long	KP290 – 0	KP292 – 0	KP294 – 0	KP296 – 0	KP298 – 0
	Pin short	KP290 – 1	KP292 – 1	KP294 – 1	KP296 – 1	KP298 – 1
Derating Linear	[°C]	70...350 (0W)				
Climatic Category		55/200/56				
Failure Rate <i>(Total, ϑ_o, max, 60[%] cont. lev.)</i>	[$10^{-9} h^{-1}$]	appr. 100 depends on value				
Endurance <i>IEC60115-1 clause 4.25 (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>	±[%]	2,0				
Climatic Sequence <i>IEC60115-1 clause 4.23 (260^{±5}[°C], 10^{±1}[s])</i>	±[%]	2,0				
Resistance to Soldering Heat <i>IEC60115-1 clause 4.18 (260^{±5}[°C], 10^{±1}[s])</i>	±[%]	0,2				
Terminal Strength	±[%]	1,0				
Terminal Tensile Strength	[N]	40				
Solderability <i>IEC60068-2-20 (245^{±5}[°C] 3^{±0,5}[s])</i>		Solder bath method (> 95% coverage)				
Marking <i>IEC60062</i>		On termination; value 3 digits, Tolerance, Production date code				

ELECTRICAL CHARACTERISTIC

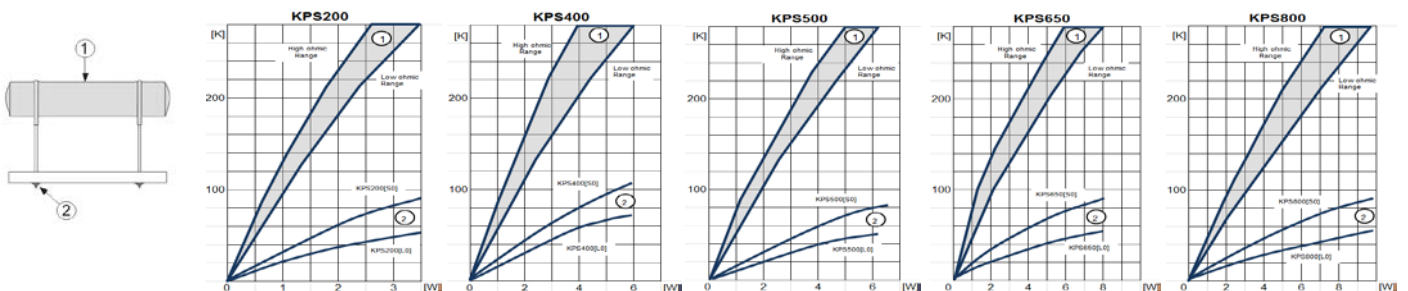
RESISTANCE RANGE (minimum)

TEMPERATURE COEFFICIENT

New P/Nr. Type	Historical P/N:	± 10 [%]	± 5 [%]
KPS200	KP290 - 0 / -1	OR1	OR2
KPS400	KP292 - 0 / -1	OR15	OR3
KPS500	KP294 - 0 / -1	OR27	OR47
KPS650	KP296 - 0 / -1	OR39	OR68
KPS800	KP298 - 0 / -1	OR47	OR91

New P/Nr. Type	Historical P/N:	400 ± 50 ppm/K		-20 ± 60 ppm/K		0 ± 10 ppm/K	
KPS200	KP290 - 0 / -1	≥ OR1	≤ OR27	≥ OR3	≤ 510R	≥ 560R	≤ 7K5
KPS400	KP292 - 0 / -1	≥ OR15	≤ OR56	≥ OR62	≤ 620R	≥ 680R	≤ 11K
KPS500	KP294 - 0 / -1	≥ OR27	≤ OR62	≥ OR68	≤ 1K1	≥ 1K2	≤ 20K
KPS650	KP296 - 0 / -1	≥ OR39	≤ 1R3	≥ 1R5	≤ 1K6	≥ 1K8	≤ 27K
KPS800	KP298 - 0 / -1	≥ OR47	≤ 1R6	≥ 1R8	≤ 2K	≥ 2K2	≤ 36K

TEMPERATURE RISE (Solder joints)



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PACKAGING

The standard packaging for KPS in radial type is Bulk, dimensions below.



Type	Historical P/N:	Pack Code	Pieces	Forming Type	Special
KPS200	KP290 – 0	B = Bulk	500	RD- = Radial	LO = Pin long
KPS400	KP292 – 0		500		
KPS500	KP294 – 0		250		
KPS650	KP296 – 0		250		
KPS800	KP298 – 0		250		
KPS200	KP290 – 1		1000		SO = Pin short
KPS400	KP292 – 1		1000		
KPS500	KP294 – 1		500		
KPS650	KP296 – 1		500		
KPS800	KP298 – 1		250		