

KWP Series Datasheet

Power Wirewound Resistor | Radial | Fiber glass core | ceramic case

ORDERING CODE - Example

New SAP Part Nr.:

KWP	20A	J	F	-	RD-	220R	SP
Serie	* Power rating	Tol.	Pack-Code	TCR	Forming type	R Value	Special
		J = ±5% **K** = ±10%	**F** = Bulk with fiberglass element	- Base on spec.	**RD-** = Radial		**SP** = 1 Pin Short **SL** = 1 Pin Long **DL** = 2 Pin Long

Historical VTM Part Nr.:

KWP338 – 3	5	B	220R
Type	Tol.	Pack-Code	R Value
KWP338 – 5	**5**	**B**	**220R**
Type	Tol.	Pack-Code	R Value
KWP338 – 7	**5**	**B**	**220R**
Type	Tol.	Pack-Code	R Value

APPLICATIONS

- Automotive
- Industrial
- Power & Energy
- Consumer & Electronics
- Computer & Peripherals

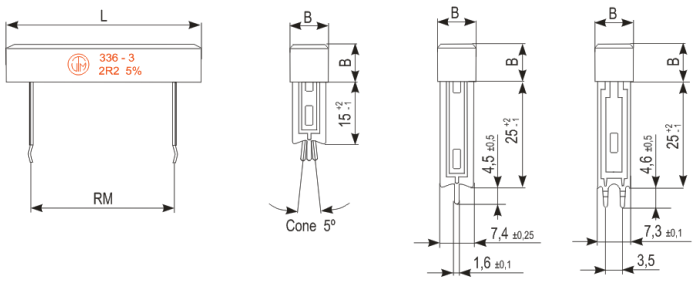
FEATURES

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

ELECTRICAL SPECIFICATIONS

Type		KWP300	KWP400	KWP500	KWP700	KWP900	KWP10A	KWP15A	KWP20A
Historical Part Number	1 Pin Short	KWP330 – 3	KWP331 – 3	KWP332 – 3	KWP333 – 3	KWP335 – 3	KWP336 – 3	KWP337 – 3	KWP338 – 3
	1 Pin Long	KWP330 – 5	KWP331 – 5	KWP332 – 5	KWP333 – 5	KWP335 – 5	KWP336 – 5	KWP337 – 5	KWP338 – 5
	2 Pin Long	KWP330 – 7	KWP331 – 7	KWP332 – 7	KWP333 – 7	KWP335 – 7	KWP336 – 7	KWP337 – 7	KWP338 – 7
Nominal Power Rating * P_{25}	[W]	3,0	4,0	5,0	7,0	9,0	10,0	15,0	20,0
P_{70}		2,5	3,3	4,1	5,7	7,4	8,2	12,3	16,4
Resistance Range	[Ω] Min.	R2	R22	R3	R43	R56	R68	R82	R91
	Max.	2K4	3K	3K6	4K7	5K6	6K8	7K5	10K
		(Other values upon request)							
E-Series (preferred)		E24 = 5% ; E12 = 10% (Other upon request)							
Tolerances	±[%]	J = 5% ; K = 10%							
Temperature Coefficient	$\pm[10^{-6*}K^{-1}]$	-80 … +500 Depends on value							
Working Temperature Range	[ºC]	-55 … +275							
Thermal Resistance	$[KW^{-1}]$	82	62	50	36	28	25	17	13
Insulation Resistance IEC60115-1 clause 4.6	[MΩ]	$> 10^4$							
Max. Working Voltage	$[V]_{RMS}$	$\sqrt{P_{70} \times R}$							
Dielectric Withstanding Voltage IEC60115-1 clause 4.7 (1[min])	$[V]_{RMS}$	2000							

DIMENSIONS [mm]



New P/Nr. Type	*Historical P/N:*	L	B ±0,5	RM
KWP300	KWP330 – 3/5/7	**23,0**	**10,0**	**10,0**
KWP400	KWP331 – 3/5/7	**25,0**	**10,0**	**12,5**
KWP500	KWP332 – 3/5/7	**28,0**	**10,0**	**15,0**
KWP700	KWP333 – 3/5/7	**35,5**	**10,0**	**22,5**
KWP900	KWP335 – 3/5/7	**43,0**	**10,0**	**30,0**
KWP10A	KWP336 – 3/5/7	**48,0**	**10,0**	**35,0**
KWP15A	KWP337 – 3/5/7	**50,0**	**13,0**	**32,5**
KWP20A	KWP338 – 3/5/7	**65,0**	**13,0**	**47,5**

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KWP Series Datasheet

PERFORMANCE DATA

Type		KWP300	KWP400	KWP500	KWP700	KWP900	KWP10A	KWP15A	KWP20A
Historical Part Number	1 Pin Short	KWP330 – 3	KWP331 – 3	KWP332 – 3	KWP333 – 3	KWP335 – 3	KWP336 – 3	KWP337 – 3	KWP338 – 3
	1 Pin Long	KWP330 – 5	KWP331 – 5	KWP332 – 5	KWP333 – 5	KWP335 – 5	KWP336 – 5	KWP337 – 5	KWP338 – 5
	2 Pin Long	KWP330 – 7	KWP331 – 7	KWP332 – 7	KWP333 – 7	KWP335 – 7	KWP336 – 7	KWP337 – 7	KWP338 – 7
Derating Linear	[ºC]	70…275 (0W)							
Climatic Category		55/200/56							
Failure Rate *(Total, ϑ_0, max, 60[%] cont. lev.)*	[10^{-9*} h^{-1}]	appr. 100 depends on value							
Endurance *IEC60115-1 clause 4.25* *(P_{70} @ 70[°C], 1000[h])*	±[%]	3							
Damp Heat, Steady State *IEC60115-1 clause 4.24* *(40[°C], 93[% r.h.], 56[d])*	±[%]	2							
Resistance to Soldering Heat *IEC60115-1 clause 4.18* *($260^{\pm5}$[°C], $10^{\pm1}$[s])*	±[%]	0,5							
Solderability *IEC60068-2-20* *($245^{\pm5}$[ºC] $3^{\pm0.5}$[s])*		Solder bath method (> 95% coverage)							
Marking *IEC60062*		Printed in clear							

PACKAGING

The standard packaging for KWP type is bulk, dimensions below.



New P/Nr. Type	Special	*Historical P/N:*	Pieces	Pack Code	*Forming Type*
KWP300	SP ; SL ; DL	KWP330 – 3 ; 5 ; 7	144	**F** = Bulk with fiberglass element	**RD-** = Radial
KWP400	SP ; SL ; DL	KWP331 – 3 ; 5 ; 7	100		
KWP500	SP	KWP332 – 3	112		
	SL ; DL	KWP332 – 5 ; 7			
KWP700	SP	KWP333 – 3	120		
	SL ; DL	KWP333 – 5 ; 7			
KWP900	SP	KWP335 – 3	150		
	SL ; DL	KWP335 – 5 ; 7			
KWP10A	SP	KWP336 – 3			
	SL	KWP336 – 5			
	DL	KWP336 – 7			
KWP15A	SP	KWP337 – 3			
	SL	KWP337 – 5			
	DL	KWP337 – 7			
KWP20A	SP	KWP338 – 3			
	SL ; DL	KWP338 – 5 ; 7			

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