

KHS Series Datasheet

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

ORDERING CODE-Example

New SAP Part Nr.:

KHS	500	K	B	-	AX-	150R	AA
Serie	Power rating	Tol. J = ±5% K = ±10%	Pack-Code B = Bulk R = Tape Reel	TCR - Base on spec.	Forming type AX- = Axial 83- Inner Taping dimension	R Value	Special AA = Standard

Historical VTM Part Nr.:

KH208 - 8	5	B	150R
Type	Tol. J = ±5% K = ±10%	Pack-Code B = Bulk R = Tape Reel	R Value

APPLICATIONS

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

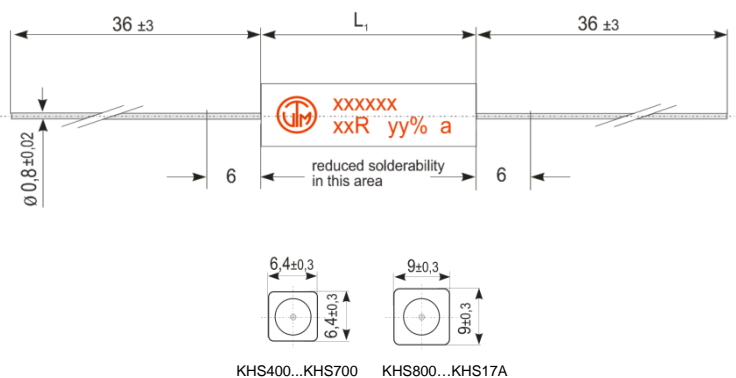
FEATURES

Pulse version available
preforming ; Other preforming available
RoHS Compliant

ELECTRICAL SPECIFICATIONS

Type		KHS400	KHS500	KHS700	KHS800	KHS10A	KHS11A	KHS17A
Historical Part Number		KH206-8	KH208-8	KH210-8	KH212-8	KH214-8	KH216-8	KH218-8
Nominal Power Rating P_{70}	[W]	4	5	7	8	10	11	17
Resistance Range	Min. [Ω]	Please check the table below						
	Max. [Ω]	9K1	15K	33K	15K	33K	47K	82K
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]	70	56	40	35	28	25	16
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]



Type	Historical P/N:	L ₁
KHS400	KH206 - 8	20 ±1,0
KHS500	KH208 - 8	25 ±1,0
KHS700	KH210 - 8	38 ±1,0
KHS800	KH212 - 8	25 ±1,0
KHS10A	KH214 - 8	38 ±1,0
KHS11A	KH216 - 8	50 ±1,5
KHS17A	KH218 - 8	75 ±2,0

KHS Series Datasheet

PERFORMANCE DATA

Type		KHS400	KHS500	KHS700	KHS800	KHS10A	KHS11A	KHS17A
Historical Part Number		KH206-8	KH208-8	KH210-8	KH212-8	KH214-8	KH216-8	KH218-8
Derating Linear	[°C]	70...350 (0W)						
Climatic Category		55/200/21						
Failure Rate <i>(Total, ϑ, max, 60[%] cont. lev.)</i>	[10 ⁻⁹ h ⁻¹]	appr. 100 depends on value						
Endurance <i>IEC60115-1 clause 4.25 (P₇₀, @ 70[°C], 1000[h])</i>	±[%]	3						
Damp Heat, Steady State <i>IEC60115-1 clause 4.24 (40[°C], 93[% r.h.], 56[d])</i>	±[%]	2						
Climatic Sequence <i>IEC60115-1 clause 4.23</i>	±[%]	2						
Resistance to Soldering Heat <i>IEC60115-1 clause 4.18 (260^{±5}[°C], 3,5^{±1}[s])</i>	±[%]	0,2						
Terminal Strength	±[%]	1						
Terminal Tensile Strength	[N]	50						
Solderability <i>IEC60068-2-20 (245^{±5}[°C] 3^{±0,5}[s])</i>		Solder bath method (> 95% coverage)						
Marking <i>IEC60062</i>		Printed in clear						

ELECTRICAL CHARACTERISTIC

RESISTANCE RANGE (minimum)

New P/Nr. Type	Historical P/N:	± 10 [%]	± 5 [%]
KHS400	KH206 - 8	OR051	OR1
KHS500	KH208 - 8	OR075	OR15
KHS700	KH210 - 8	OR11	OR33
KHS800	KH212 - 8	OR075	OR15
KHS10A	KH214 - 8	OR11	OR33
KHS11A	KH216 - 8	OR15	OR51
KHS17A	KH218 - 8	OR27	OR91

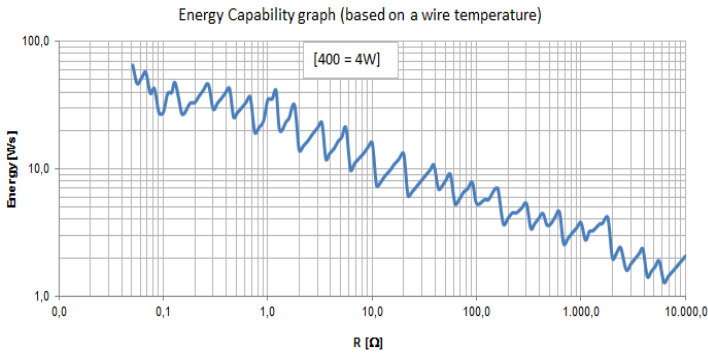
TEMPERATURE COEFFICIENT

New P/Nr. Type	Historical P/N:	400 ± 50 ppm/K		-20 ± 60 ppm/K		0 ± 10 ppm/K	
KHS400	KH206 - 8	≥ OR051	≤ OR2	≥ OR22	≤ 300R	≥ 330R	≤ 9K1
KHS500	KH208 - 8	≥ OR075	≤ OR3	≥ OR33	≤ 470R	≥ 510R	≤ 15K
KHS700	KH210 - 8	≥ OR11	≤ OR68	≥ OR75	≤ 910R	≥ 1K	≤ 33K
KHS800	KH212 - 8	≥ OR075	≤ OR3	≥ OR33	≤ 470R	≥ 510R	≤ 15K
KHS10A	KH214 - 8	≥ OR11	≤ OR68	≥ OR75	≤ 910R	≥ 1K	≤ 33K
KHS11A	KH216 - 8	≥ OR15	≤ 1R	≥ 1R1	≤ 1K3	≥ 1K5	≤ 47K
KHS17A	KH218 - 8	≥ OR27	≤ 1R6	≥ 1R8	≤ 2K4	≥ 2K7	≤ 82K

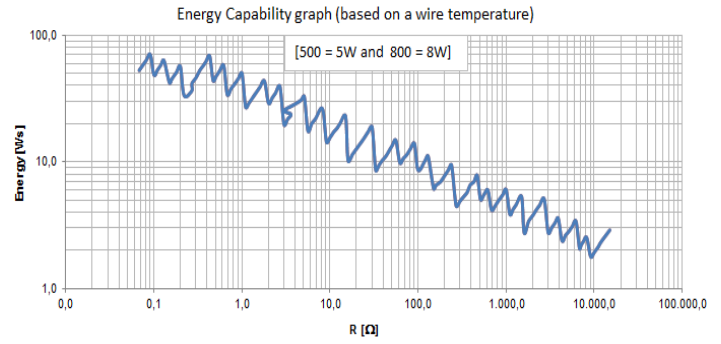
KHS Series Datasheet

PERFORMANCE GRAPH'S

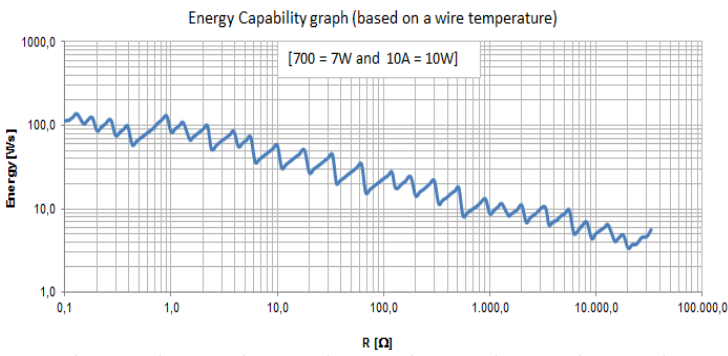
KHS400



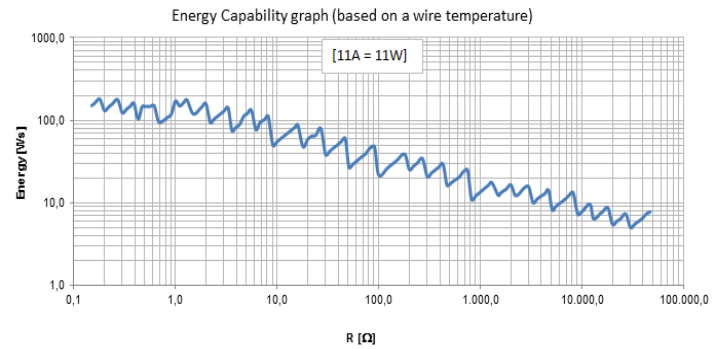
KHS500 and KHS800



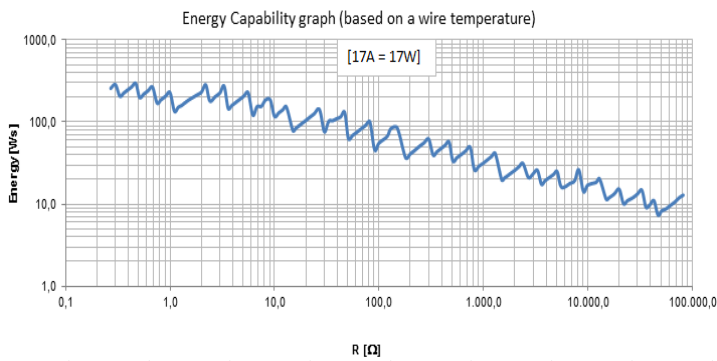
KHS700 and KHS10A



KHS11A



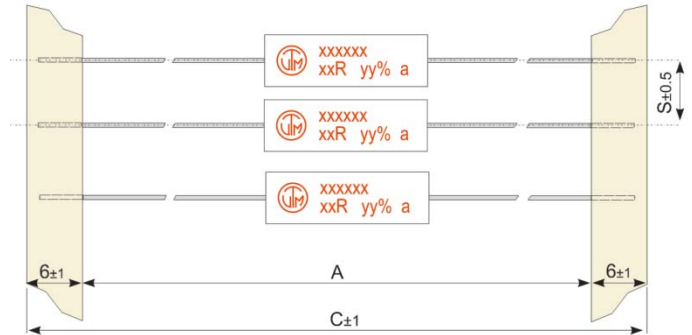
KHS17A



KHS Series Datasheet

PACKAGING

The standard packaging for KHS in axial type is bulk, dimensions below.



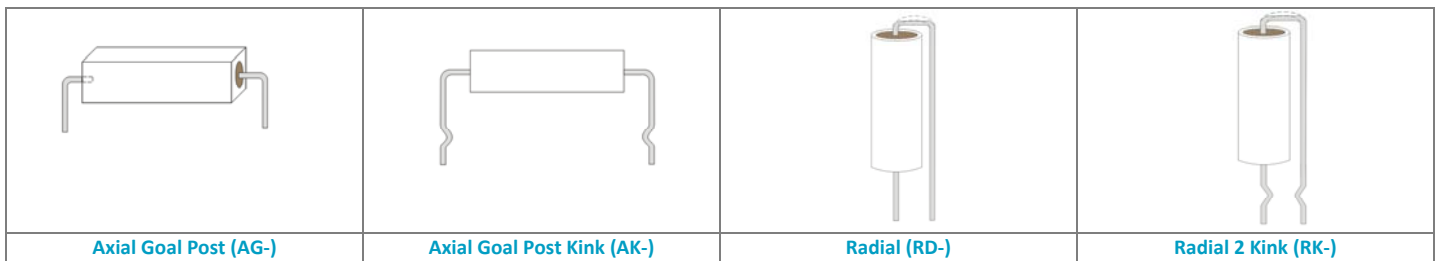
New P/Nr. Type	Historical P/N:	Pack Code	Pieces	Forming Type
KHS400	KH206 - 8	B = Bulk	200	AX- = Axial
KHS500	KH208 - 8		200	
KHS700	KH210 - 8		200	
KHS800	KH212 - 8		200	
KHS10A	KH214 - 8		100	
KHS11A	KH216 - 8		100	
KHS17A	KH218 - 8		100	

New P/Nr. Type	Historical P/N:	Pack Code	Pieces	Forming Type (Inner Taping dim.)	A	C	S
KHS400	KH206 - 8	R = Taped in Reel	1000	83-	83	95	10
KHS500	KH208 - 8		1000		83	95	10
KHS700	KH210 - 8		1000		83	95	10
KHS800	KH212 - 8		500		83	95	10
KHS10A	KH214 - 8		500		83	95	10

ALTERNATIVE LEAD CONFIGURATIONS

This type KHS is also available in a different pre-forming, as shown below, other's upon request.

THROUGH HOLE VERSION



For horizontal and vertical pre-forming please consult your local sales contact.