



KWA Series Datasheet

Power Wirewound Resistor | Fiber Glass core | Radial | Ceramic case | AMP contacts

ORDERING CODE-Example

New SAP Part Nr.:

KWA	40A	J	F	-	RD-	47R	AA
Serie	Power rating	Tol.	Pack-Code	TCR	Forming type	R Value	Special
		J = ±5% K = ±10%	F = Fiber Glass Element	- Base on spec.	RD- = Radial		AA = Standard

Historical VTM Part Nr.:

KWA40	5	B	47R
Type	Tol.	Pack-Code	R Value

APPLICATIONS

- Automotive
- Industrial
- Alternative Energy

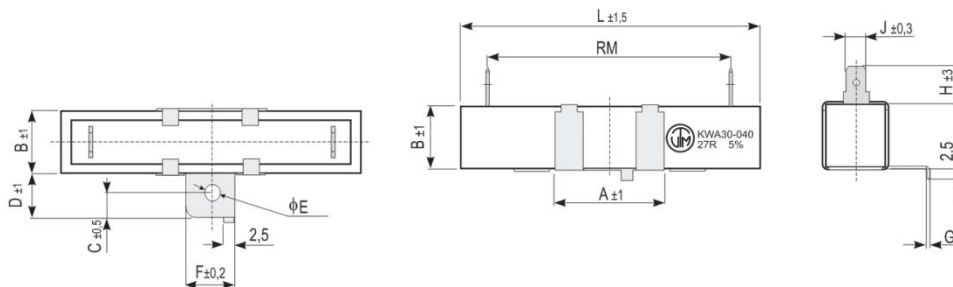
FEATURES

- Automotive grade
- Electrical / hybrid vehicles battery management
- High Pulse capability version available
- RoHs and REACH Compliant

ELECTRICAL SPECIFICATIONS

Type		KWA15A	KWA20A	KWA30A	KWA40A
Historical Part Number		KWA15	KWA20	KWA30	KWA40
Nominal Power Rating P_{70}	[W]	15	20	30	40
Resistance Range (Other values upon request)	[Ω]	Min	R51	R62	R62
		Max	5K6	10K	10K
E-Series (preferred)		E24 (Other upon request)			
Tolerances	±[%]	J = 5% ; K = 10%			
Temperature Coefficient	±[10 ⁻⁶ K ⁻¹]	250			
Working Temperature Range	[°C]	-55 ... +350			
Thermal Resistance	[KW ⁻¹]	19	14	9	7
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	RM	B	A	C	D	E	F	G	H	J
KWA15A	KWA15	48,0	34,0	13,0	25,0	6,0	12,5	4,0	12,0	0,6	9,0	4,8*
KWA20A	KWA20	63,5	48,0	13,0	25,0	6,0	12,5	4,0	12,0	0,6	9,0	4,8*
KWA30A	KWA30	75,0	56,0	19,0	40,0	8,0	18,0	4,2	18,0	0,8	12,0	6,3
KWA40A	KWA40	90,0	71,0	19,0	40,0	8,0	18,0	4,2	18,0	0,8	12,0	6,3

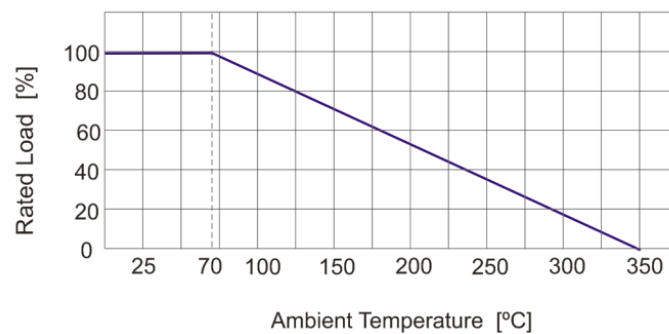
* Special AMP contacts 6,3mm available types KWA15001 and KWA20001

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PERFORMANCE DATA

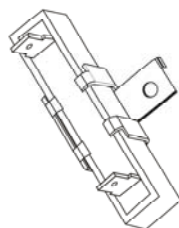
Type		KWA15A	KWA20A	KWA30A	KWA40A
Historical Part Number		KWA15	KWA20	KWA30	KWA40
Derating Linear	[°C]	70...350 (0W)			
Climatic Category		55/200/21			
Failure Rate <i>(Total, ϑ_o, max, 60[%] cont. lev.)</i>	$[10^{-9} \text{ h}^{-1}]$	appr. 100 depends on value			
Endurance <i>IEC60115-1 clause 4.25 (P_{70} @ 70[°C], 1000[h])</i>	±[%]	5			
Damp Heat, Steady State <i>IEC60115-1 clause 4.24 (40[°C], 93[% r.h.], 56[d])</i>	±[%]	5			
Resistance to Soldering Heat <i>IEC60115-1 clause 4.18 (260^{±5}[°C], 10^{±1}[s])</i>	±[%]	1			
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			

DERATING CURVE



PACKAGING

The standard packaging for KWA in radial type is bulk, dimensions below.



New P/Nr. Type	Historical P/N:	Pieces	Pack Code	Forming Type
KWA15A	KWA15	70	F = Bulk with Fiber Glass Element	RD- = Radial
KWA20A	KWA20	60		
KWA30A	KWA30	14		
KWA40A	KWA40	14		