



## KNS Series, T0 Custom Datasheet

Power Shunt Resistors | Radial and Axial Version  
Low Inductance and Low Ohmic | Open Frame

### ORDERING CODE - Example

New SAP Part Nr.:

KNS	100	F	B	-	RJ-	R01	T0
Serie	Power rating	Tol.	Pack-Code	TCR	Forming type	R Value	Special
		F = ±1% G = ±2% H = ±3% J = ±5%	B = Bulk	- Base on spec.	RJ- Radial Version (11,43[mm] RM) RL- Radial Version (15[mm] RM)		

Historical VTM Part Nr.:

KNA361-3	1	B	OR01
Type	Tol.	Pack-Code	R Value

### APPLICATIONS

- Automotive
- Power & Energy
- Consumer & Electronics

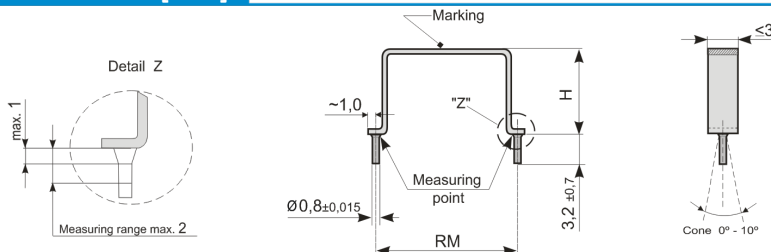
### FEATURES

- All welded construction
- Very low inductance
- Open frame design
- Solderable terminals
- RoHS & REACH Compliant
- AEC - Q200 Qualified

### ELECTRICAL SPECIFICATIONS

Type		KNS100...T0	KNS300...T0
Historical Part Number		KNA361 - 3	KNA363 - 4
Nominal Power Rating P <sub>70</sub>		1,0	3,0
Resistance	Range	OR004 ... OR082	OR005 ... OR1
	Preferred values	OR005; OR01; OR015; OR02 ; OR025; OR03; OR04; OR05	
Tolerances	±[%]	F = 1% ; G = 2% ; H = 3% ; J = 5%	
Temperature Coefficient	±[10 <sup>-6</sup> *K <sup>-1</sup> ]	+200 ... +1200 (Depends on value)	
Working Temperature Range	[°C]	-55 ... +300	
Thermal Resistance	[KW <sup>-1</sup> ]	230	77
Max. Working Voltage	[V] <sub>RMS</sub>	$\sqrt{P_{70} \times R}$	
Dielectric Withstanding Voltage IEC115-1 clause 4.7 (1[min])	[V] <sub>RMS</sub>	Non insulated	

### DIMENSIONS [mm]



Type	[Forming Type]	Historical P/N:	H max.	RM
KNS100...T0	[RJ]	KNA361 - 3	8,0	11,43
KNS300...T0	[RL]	KNA363 - 4	18,0	15,0

**Construction:** The resistive elements consist of a flat metal-band. Spot welded Cu-terminals ensure high stability of Contacts. Thus, this construction results in a non-inductive resistor of both high stability and overload capacity.

# KNS Series Datasheet

## PERFORMANCE DATA

Type		KNS100...T0	KNS300...T0
Historical Part Number		KNA361 – 3	KNA363 – 4
Derating Linear	[°C]	70...300 (0W)	
Climatic Category		55/200/56	
Failure Rate <i>(Total, <math>\rho_p</math>, max, 60[%] cont. lev.)</i>	[ $10^{-9} h^{-1}$ ]	appr. 100 depends on value	
Endurance <i>IEC60115-1 clause 4.25 (<math>P_{70}</math> @ 70[°C], 1000[h])</i>	±[%]	3,0	
Resistance to Soldering Heat <i>IEC60115-1 clause 4.18 (260<sup>±5</sup>[°C], 3,5<sup>±1</sup>[s])</i>	±[%]	0,2	
Damp Heat, Steady State <i>IEC60115-1 clause 4.24 ; IEC60068-2-78 (40[°C], 93[% r.h.], 56[d])</i>	±[%]	1,5	
Rapid change of temperature <i>IEC60115-1 clause 4.19 and IEC60068-2-14 (30 [min] -55 [°C] and 30 [min] +125 [°C])</i>	±[%]	1,0	
Biased Humidity <i>MIL-STD-202 Method 103 (85[°C], 85[%RH] 1.000[h])</i>	±[%]	2,5	
Vibrations <i>Mil-STD-202 Method 204 (10 to 2000 [Hz], 5 [G] for 20 [min], 12 cycles, each of 3 orientation)</i>	±[%]	9,0	
Mechanical Shock <i>Mil-STD-202 Method 213 (Method C, peak value 100 [G], Half sine)</i>	±[%]	3,0	
ESD <i>IEC60115-1 Clause 4.38, AEC-Q200-002 Direct contact, 2discharges, Cs = 150 [pf], Rd = 2000 [Ω], V = 2[KV] (time/sec)</i>	±[%]	1,5	
Terminal Strength	±[%]	0,5	
Terminal Tensile Strength	[N]	≥ 25	
Solderability <i>IEC60068-2-20 (245<sup>±5</sup>[°C] 3<sup>±0,5</sup>[s])</i>		Solder bath method (> 95% coverage)	
Marking <i>IEC60062</i>		Value imprinted	

## PACKAGING

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



Type	Historical P/N:	Pack Code	Pieces	Forming Type	Special
KNS100...T0	KNA361 – 3	B = Bulk	1000	RJ-	T0
KNS300...T0	KNA363 – 4		500	RL-	