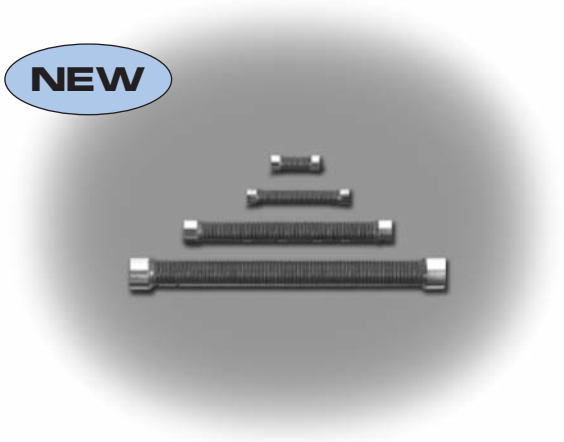
KOA SPEER ELECTRONICS, INC.

PSN, PV, PSO, PN, PWW, PAP

high voltage power resistors

EU RoHS COMPLIANT

NEW

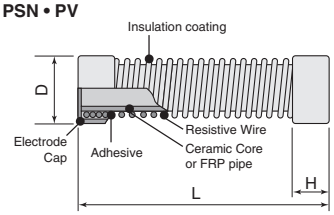


features

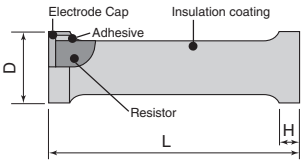
- PSN is made completely moisture preventive to be PSO
- PN is a non-inductive type and can be used for high frequency
- PWW resistors, which are non-inductive wirewound resistors for high voltage with resistance wires wound on insulation pipes
- PAP resistors are non-inductive wirewound resistors with inductance less than PWW, can be used for pulse wave measurement, impulse generators, etc. and have the same dimensions as PWW resistors

dimensions and construction

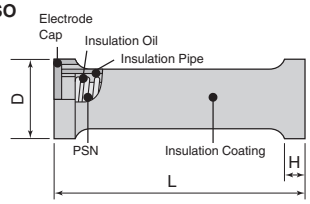
PSN • PV



PN, PWW, PAP



PSO



Size Code	Dimensions inches L	D±0.5	H (Nominal)	Weight (g)
PSN-0.5	50±2	17.5	10	20
PSN-1	100±2			30
PSN-2	200±2	24	15	85
PSN-3	300±2	33	20	250
PSN-4	400±3	45		600
PSN-5	500±3	62	25	800
PSN-6	1000±5			1350
PV-0.5	80±2	9.5	8	12
PV-1	150±2			23
PV-2		17.5	10	45
PV-5	250±2	24	15	105
PV-8		33	20	220
PSO-0.5	55±5	28	10	120
PSO-1	105±5			150
PSO-2	205±5	38		370
PSO-3	320±5	46	20	760
PSO-4	420±5	65		1900
PSO-5	530±5	80	25	3500
PSO-6	1050±5			6200
PN-0.5	50±2	17	8	25
PN-1	100±2		12	55
PN-2	200±2			80
PN-3	300±2			100
PN-4	400±2			125
PWW-3, PAP-3	300±2	33	20	310 • 250
PWW-4, PAP-4	400±3	45		660 • 510
PWW-5, PAP-5	500±3	62	25	1330 • 960
PWW-6, PAP-6	1000±5			2700 • 1850

NEW

ordering information

New Part #										
Pb free	PSN	0.5	CP	C		A	105	J
RoHs	PSN	0.5	CP		F	A	105	J
	Product Code	Power Rating	Cap*	Termination Material	RoHS	Holder	Nominal Resistance	Tolerance
	PSN PV PSO PN PWW PAP	0.5 : 2W 1 : 5W 2 : 10W 3 : 25W 4 : 50W 5 : 125W 6 : 250W	C M MS CP	CP C:Sn/Cu (ø1.0mm) T:Sn(ø1.2mm) C, M Nil:Ni		Nil: No Holder A B	3 digits	J : ±5% K : ±10% M : ±20%

*1: See Appendix C

Specifications given herein may be changed at any time without prior notice. Please confirm technical specifications before you order and/or use. 12/28/08

KOA SPEER ELECTRONICS, INC.

PSN, PV, PSO, PN, PWW, PAP

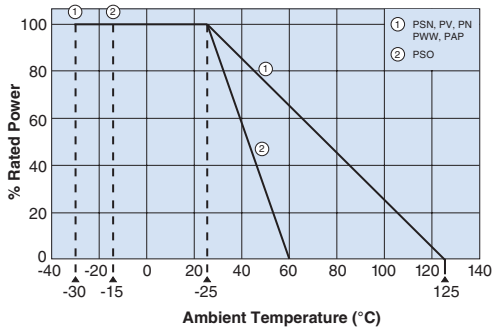
high voltage power resistors

applications and ratings

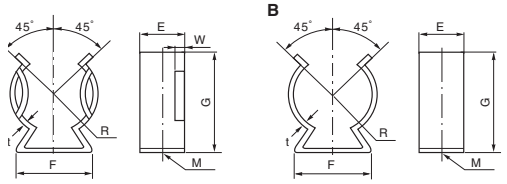
Part Designation	Power Rating (W)	Resistance Range (Ω) J: ±5% K: ±10% M: ±20% (E24)	T.C.R. (x10^{-6}/K)	Maximum Working Voltage	Impulse Withstand Voltage	Operating Temperature Range	Inductance (μH) Maximum
PSN-0.5	2	500~500M	±1500: +25°C/-15°C ±1000: +25°C/+85°C (R<1GΩ) ±3000 (R≥1GΩ)	15kV	20kV	-30°C~+125°C	—
PSN-1	5	1k~1G		30kV	40kV		
PSN-2	10	2k~2G		60kV	80kV		
PSN-3	25	3k~3G		90kV	120kV		
PSN-4	50	4k~4G		120kV	160kV		
PSN-5	125	5k~5G		150kV	200kV		
PSN-6	250	6k~6G		300kV	400kV		
PV-0.5	2	500~500M		24kV	32kV		
PV-1	4	1k~1G		45kV	60kV		
PV-2	7	1.5k~1.5G					
PV-5	12	2.5k~2.5G		75kV	100kV	-15°C~+60°C	
PV-8	20	2.5k~2.5G					
PSO-0.5	1.5	500~500M		15kV	20kV		
PSO-1	4	1k~1G		30kV	40kV		
PSO-2	8	2k~2G		60kV	80kV		
PSO-3	20	3k~3G		90kV	120kV		
PSO-4	40	4k~4G		120kV	160kV		
PSO-5	100	5k~5G		150kV	200kV		
PSO-6	200	6k~6G		300kV	400kV		
PN-0.5	1.5	50~500k		—	20kV	-30°C~+125°C	
PN-1	3	100~1M		—	40kV		
PN-2	6	200~2M		—	80kV		
PN-3	9	300~3M		—	120kV		
PN-4	12	400~4M		—	160kV		
PWW-3	25	10~800	—	—	120kV	—	20
PAP-3		10~400					3
PWW-4	50	15~1500			160kV		35
PAP-4		10~800					6
PWW-5	100	25~2500			200kV		70
PAP-5		15~1000					12
PWW-6	200	50~5000					150
PAP-6		25~2000					25

environmental applications

Derating Curve



Holder Dimensions (mm)



Type	R	E	F	G	M	t	W
PSN-0.5, PSN-1, PV-2	8.5	11	16	24	ø4.2	0.8	1.5±0.5
PSN-2, PV-5	11.5	15	18	32		1.0	
PSN-3, PV-8	16	18	24	40	ø6.5		1.5±1.0
PSN-4	22	20	36	59		1.5	2.0±1.0
PSN-5, PSN-6	30	25	46	74		1.5	

(PWW, PAP: Please contact factory for details)

Performance Characteristics

Parameter	Requirements Δ R±%	Test Method	
Resistance	Within specified tolerance	25°C	
T.C.R.	Within specified T.C.R.	R<1GΩ	±1500 : +25°C/-15°C
			±1000 : +25°C/+85°C
		R≥1GΩ	±3000 : +25°C/-15°C, +25°C/+85°C
Rapid Change of Temperature	5	-30°C (30 minutes)/+85°C (30 minutes) 5 cycles Except for PSN	
Voltage Characteristics	3	Rated voltage or max. working voltage, whichever is lower and 1/10 of its voltage	
Moisture Resistance	5 : R<100MΩ	40°C, 90%~95%RH, 250 hours	
	10: R≥100MΩ		
Endurance at 25°C	5 : R<100MΩ	25°C, 500 hours	
	10: R≥100MΩ	25°C, 500 hours, Continuous load	

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12/28/08