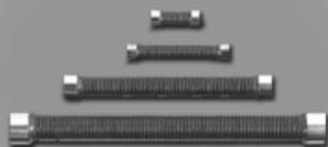


NEW

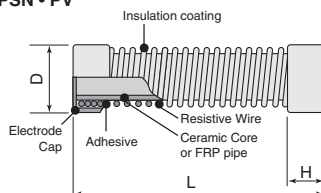


features

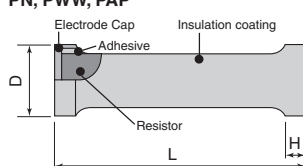
- PSN is made completely moisture preventive to be PSO
- PN is a non-inductive type and can be used for high frequency
- PWW resistors, which are non-inductive wirewound resistors for high voltage with resistance wires wound on insulation pipes
- PAP resistors are non-inductive wirewound resistors with 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

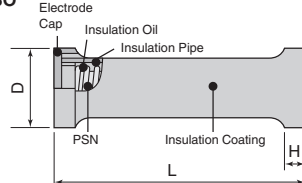
PSN • PV



PN, PWW, PAP



PSO



Size Code	Dimensions inches			Weight (g)
	L	D±0.5	H (Nominal)	
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	20	370
PSO-3	320±5	46		760
PSO-4	420±5	65	25	1900
PSO-5	530±5	80		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

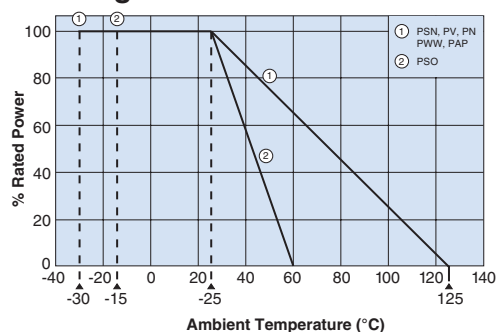
high voltage power resistors

applications and ratings

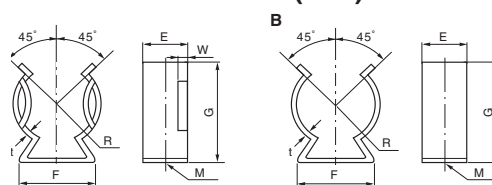
Part Designation	Power Rating (W)	Resistance Range (Ω) J: ±5% K: ±10% M: ±20% (E24)	T.C.R. (x10 ⁻⁶ /K)	Maximum Working Voltage	Impulse Withstand Voltage	Operating Temperature Range	Inductance (μH) Maximum	
PSN-0.5	2	500~500M	±1500: +25°C/-15°C ±1000: +25°C/+85°C (R<1GΩ)	15kV	20kV	-30°C~+125°C	—	
PSN-1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

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	$\phi 4.2$	0.8	1.5 $\pm$ 0.5
PSN-2, PV-5	11.5	15	18	32	$\phi 4.2$	1.0	1.5 $\pm$ 1.0
PSN-3, PV-8	16	18	24	40	$\phi 6.5$	1.5	2.0 $\pm$ 1.0
PSN-4	22	20	36	59	$\phi 6.5$	1.5	2.0 $\pm$ 1.0
PSN-5, PSN-6	30	25	46	74	$\phi 6.5$	1.5	2.0 $\pm$ 1.0

Performance Characteristics

(PWW, PAP: Please contact factory for details)

Parameter	Requirements $\Delta R \pm \%$	Test Method
Resistance	Within specified tolerance	25°C
T.C.R.	Within specified T.C.R.	$R < 1G\Omega$: ± 1500 : $+25^{\circ}C/-15^{\circ}C$ ± 1000 : $+25^{\circ}C/+85^{\circ}C$ $R \geq 1G\Omega$: ± 3000 : $+25^{\circ}C/-15^{\circ}C$, $+25^{\circ}C/+85^{\circ}C$
Rapid Change of Temperature	5	$-30^{\circ}C$ (30 minutes)/ $+85^{\circ}C$ (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 : $R < 100M\Omega$ 10 : $R \geq 100M\Omega$	40°C, 90%~95%RH, 250 hours
Endurance at 25°C	5 : $R < 100M\Omega$ 10 : $R \geq 100M\Omega$	25°C, 500 hours 25°C, 500 hours, Continuous load

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