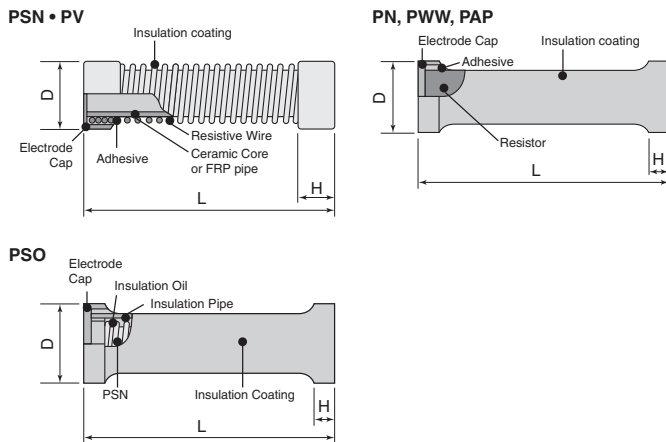


features

- 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



Size Code	Dimensions (mm)			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			85
PSN-3	300±2			250
PSN-4	400±3	45	20	600
PSN-5	500±3			800
PSN-6	1000±5	62	25	1350
PV-0.5	80±2			12
PV-1	150±2	9.5	8	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			370
PSO-3	320±5	46	20	760
PSO-4	420±5			1900
PSO-5	530±5	80	25	3500
PSO-6	1050±5			6200
PN-0.5	50±2	17	12	25
PN-1	100±2			55
PN-2	200±2			80
PN-3	300±2			100
PN-4	400±2	33	20	125
PWW-3, PAP-3	300±2			310 • 250
PWW-4, PAP-4	400±3	45	20	660 • 510
PWW-5, PAP-5	500±3	62	25	1330 • 960
PWW-6, PAP-6	1000±5			2700 • 1850

ordering information

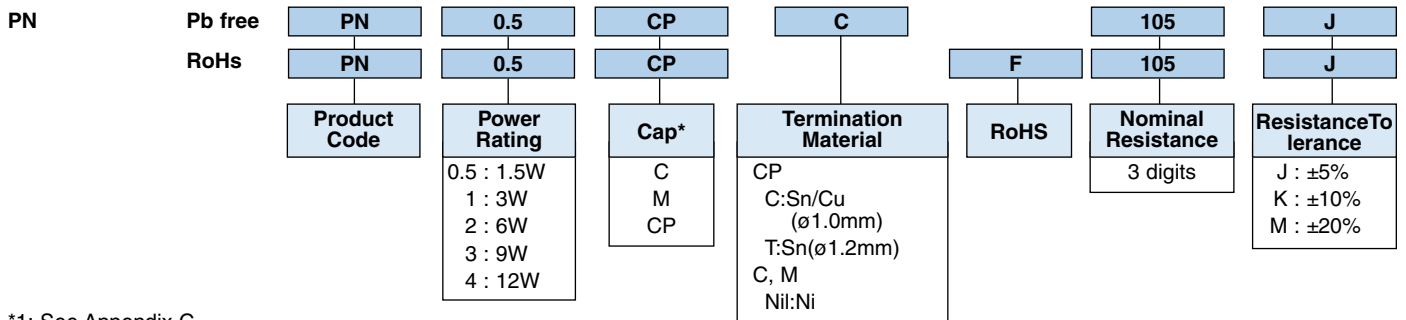
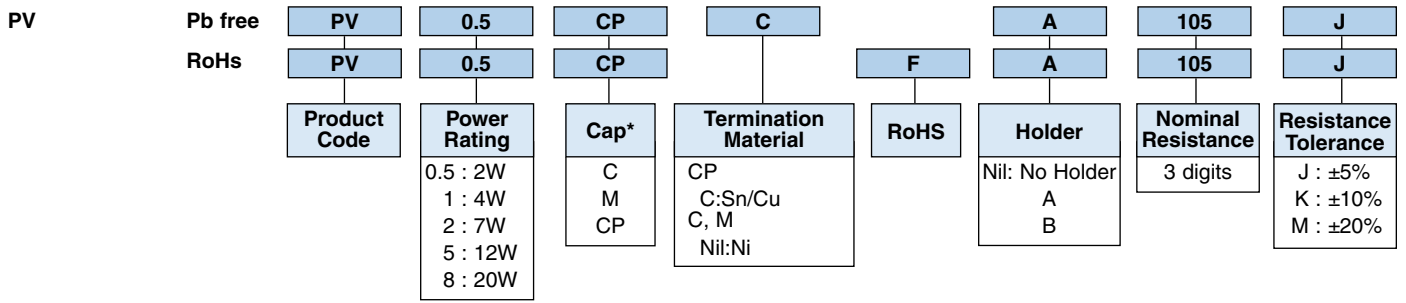
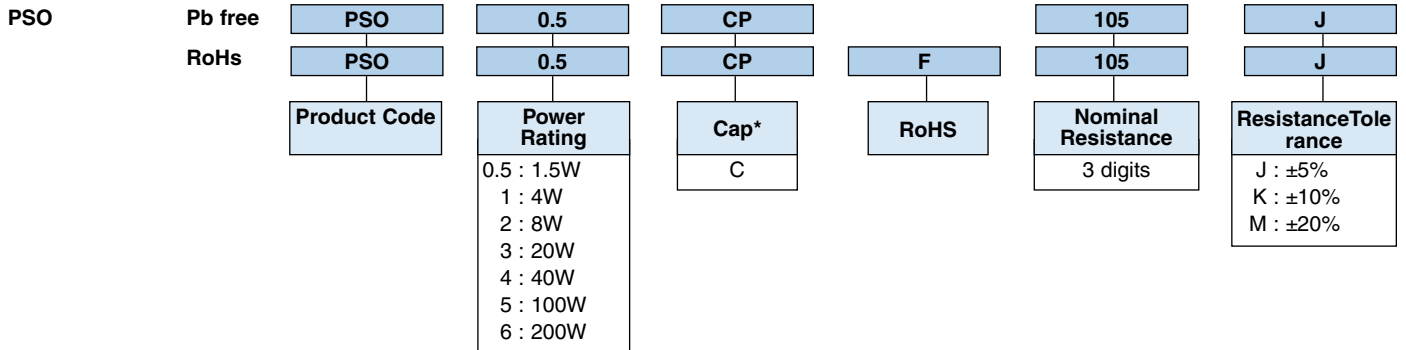
PSN	Pb free	PSN	0.5	CP	C		A	105	J
	RoHS	PSN	0.5	CP		F	A	105	J
		Product Code	Power Rating	Cap*	Termination Material	RoHS	Holder	Nominal Resistance	Resistance Tolerance
			0.5 : 2W 1 : 5W 2 : 10W 3 : 25W 4 : 50W 5 : 125W 6 : 250W	C M MS CP	CP C:Sn/Cu (ø1.0mm) T:Sn(ø1.2mm) C, M, MS Nil:Ni		Nil: No Holder 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.

9/03/10

ordering information



*1: See Appendix C



KOA SPEER ELECTRONICS, INC.

PSN, PV, PSO, PN, PWW, PAP

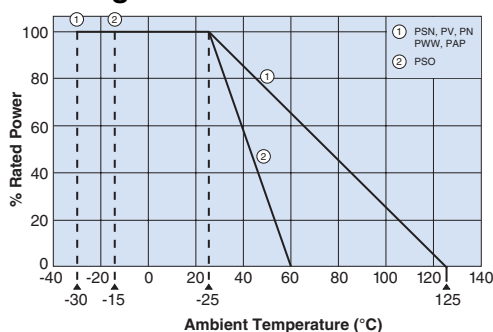
high voltage power resistors

applications and ratings

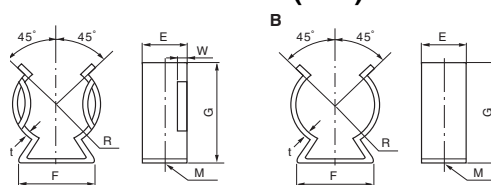
Part Designation	Power Rating (W)	Resistance Range (Ω) J: $\pm 5\%$ K: $\pm 10\%$ M: $\pm 20\%$ (E24)	T.C.R. ($\times 10^{-6}/K$)	Maximum Working Voltage	Impulse Withstand Voltage	Operating Temperature Range	Inductance (μH) Maximum			
PSN-0.5	2	500~500M	± 1500 : $+25^{\circ}C/-15^{\circ}C$ ± 1000 : $+25^{\circ}C/+85^{\circ}C$ ($R < 1G\Omega$)	15kV	20kV	$-30^{\circ}C \sim +125^{\circ}C$				
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		± 3000 ($R \geq 1G\Omega$)	24kV			32kV	$-15^{\circ}C \sim +60^{\circ}C$	—
PV-1	4	1k~1G			45kV			60kV		
PV-2	7	1.5k~1.5G			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						
PSO-4	40	4k~4G	300kV	400kV						
PSO-5	100	5k~5G	—	20kV	$-30^{\circ}C \sim +125^{\circ}C$					
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	—	—						
PN-4	12	400~4M	—	—						
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	$\phi 4.2$	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	$\phi 6.5$	1.5	2.0 ± 1.0
PSN-4	22	20	36	59		1.5	
PSN-5, PSN-6	30	25	46	74		1.5	

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 : $R < 100M\Omega$	25°C, 500 hours
	10 : $R \geq 100M\Omega$	25°C, 500 hours, Continuous load

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