



HVP

High Voltage Thick Film Planar Resistors

- High resistance resistors for high voltage circuits
- Thin SIP shape
- The flame retardant coats corresponding to UL94V-0 are used
- Thick film resistors ensure high stabilities in life and change in aging
- Products with lead-free terminations meet EU RoHS requirement.

EU RoHS regulation is not intended for Pb-glass contained in electrode, resistor element and glass.



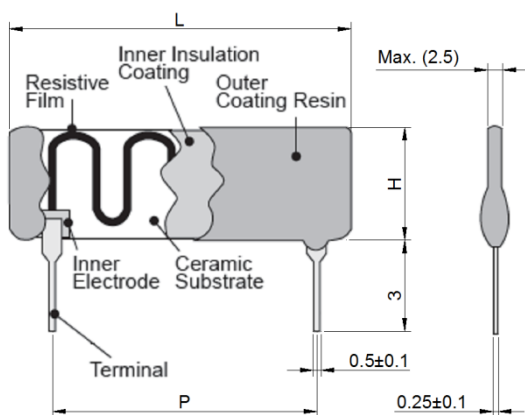
■ GENETAL SPECIFICATIONS

Model	Power Rating	Resistance Range [Ω]						T.C.R [ppm/ $^{\circ}\text{C}$]	Max. Working Voltage
		D [$\pm 0.5\%$]	F [$\pm 1.0\%$]	G [$\pm 2.0\%$]	J [$\pm 5.0\%$]	K [$\pm 10\%$]	M [$\pm 20\%$]		
HVP 3C	0.5W	1M-100M	1M-100M	-	-	-	-	± 50	4kV
		-	1M-500M	1M-500M	1M-1G	1M-1G	1M-1G	± 250	7kV
HVP 4C	0.6W	1M-100M	1M-100M	-	-	-	-	± 50	5kV
HVP 5C	0.75W	1M-150M	1M-150M	-	-	-	-	± 50	6kV
		-	1M-500M	1M-500M	1M-1G	1M-1G	1M-1G	± 250	10kV
HVP 6C	0.8W	1M-150M	1M-150M	-	-	-	-	± 50	7kV
HVP 7C	0.85W	1M-200M	1M-200M	-	-	-	-	± 50	8kV
		-	1M-500M	1M-500M	1M-1G	1M-1G	1M-1G	± 250	10kV
HVP 8C	1.0W	1M-200M	1M-200M	-	-	-	-	± 50	9kV
		-	1M-500M	1M-500M	1M-1G	1M-1G	1M-1G	± 250	10kV
HVP 9C	1.1W	-	1M-500M	1M-500M	1M-1M	1M-1G	1M-1G	± 250	10kV
HVP 4L	0.5W	-	2M-10M	2M-10M	-	-	-	± 250	1kV
HVP 5L	0.5W	-	1M-500M	1M-500M	1M-1G	1M-1G	1M-1G	± 250	10kV
HVP 6L	0.6W	-	1M-500M	1M-500M	1M-1M	1M-1G	1M-1G	± 250	10kV
HVP 11X	1.7W	-	1M-500M	1M-500M	1M-1G	1M-1G	1M-1G	± 250	10kV
HVP 18X	2.7W	-	1M-500M	1M-500M	1M-1G	1M-1G	1M-1G	± 250	15kV
HVP 18D	4W	1M-100M	1M-500M	1M-500M	1M-1G	1M-1G	1M-1G	± 100	15kV

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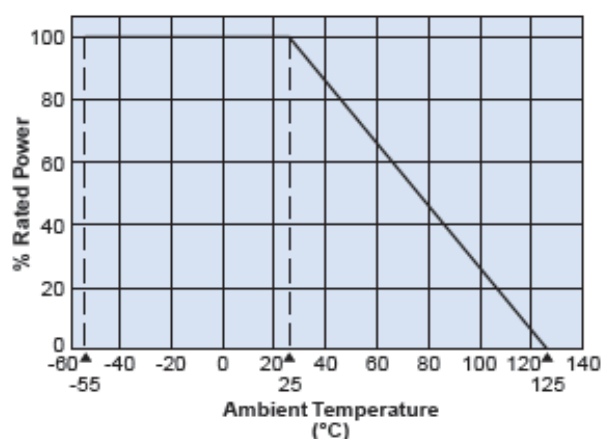
Parameter	Requirement $\Delta R \pm (\% + 0.05\Omega)$		Test Method
	Limit	Typical	
Rated Ambient Temp.	-	--	$+70^{\circ}\text{C}$
Operating Temp. Range	-	-	-25°C to $+125^{\circ}\text{C}$
T.C.R	Within specified tolerance		$+25^{\circ}\text{C}$ / $+125^{\circ}\text{C}$
Resistance to Solder Heat	1%	0.5%	$260^{\circ}\text{C} \pm 5^{\circ}\text{C}$, 10 seconds \pm 1 second
Rapid Change of Temp.	1%	0.5%	-25°C (30 minutes) / $+125^{\circ}\text{C}$ (30 minutes) 5 cycles
Moisture Resistance	5%	3%	$40^{\circ}\text{C} \pm 2^{\circ}\text{C}$, 90-95% RH, 1000 hours
Endurance @ 70°C	5%	3%	Room Temp. 1000 hours, Rated voltage

■ DIMENSIONS [mm] AND CONSTRUCTION



Model	Dimensions		
	L (Max.)	H (Max.)	P
HVP 3C	10.8	6.5	7.62
HVP 4C	13.3	6.5	10.16
HVP 5C	15.8	6.5	12.7
HVP 6C	18.4	6.5	15.24
HVP 7C	20.9	6.5	17.78
HVP 8C	23.5	6.5	20.32
HVP 9C	26.0	6.5	22.86
HVP 4L	12.7	5.08	10.16
HVP 5L	15.3	5.08	12.7
HVP 6L	17.8	5.08	15.24
HVP 11X	31.0	10.0	27.94
HVP 18X	48.9	10.0	45.72
HVP 18D	48.9	13.2	45.72

■ DERATING CURVE



For resistors operated at an ambient temperature of 70°C or above, a power rating shall be derated in accordance with the above derating curve.

■ ORDERING PROCEDURE EXAMPLE

HVP 3C	1004	F	50
Model #	Resistance	Resistance Tolerance	T.C.R
(Standard)	4 digits : F 3 digits : G,J,K,M	F : ±1% G : ±2% J : ±5% K : ±10% M : ±20%	100 250
(Precision)	4 digits : D,F	D : ±0.5% F : ±1%	50