

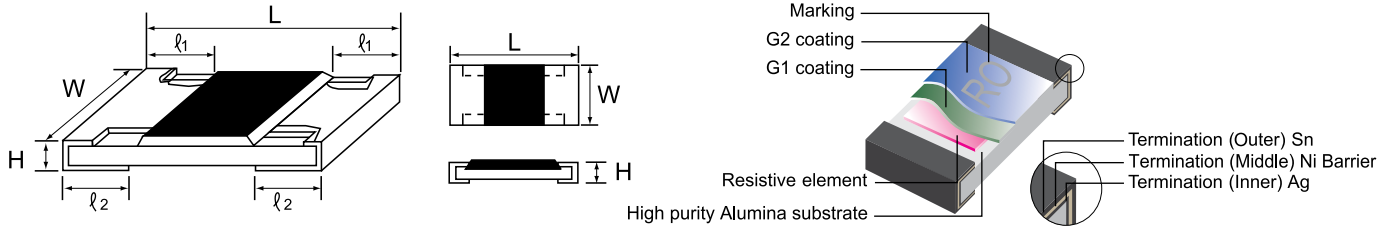
# High Power SMD Resistors



## Features

High power in standard size  
 Suitable for both wave and reflow soldering  
 Application: AV adapters, LCD back light, Camera strobe

## Dimensions

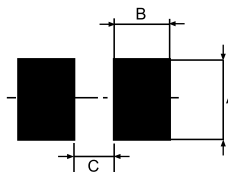


Type	Power Rating at 70°C	Max Working Voltage	Max Overload Voltage	Dielectric Withstanding Voltage	Tol %	Resistance Range	Dimension (mm)				
							L	W	H	l <sub>1</sub>	l <sub>2</sub>
HP02 (0402)	1/10W	50V	100V	100V	±1% ±5%	1Ω ~10MΩ 1Ω ~10MΩ	1.00±0.10	0.50±0.05	0.35±0.05	0.20±0.10	0.25±0.10
HP03 (0603)	1/5W	50V	100V	300V	±1% ±5%	1Ω ~10MΩ 1Ω ~10MΩ	1.60±0.10	0.80 <sup>+0.15</sup> -0.10	0.45±0.10	0.30±0.20	0.30±0.20
HP05 (0805)	1/3W	150V	300V	500V	±1% ±5%	1Ω ~10MΩ 1Ω ~10MΩ	2.00±0.15	1.25 <sup>+0.15</sup> -0.10	0.55±0.10	0.40±0.20	0.40±0.20
HP06 (1206)	1/2W	200V	400V	500V	±1% ±5%	1Ω ~10MΩ 1Ω ~10MΩ	3.10±0.15	1.55 <sup>+0.15</sup> -0.10	0.55±0.10	0.45±0.20	0.45±0.20
HP07 (1210)	3/4W	200V	500V	500V	±1% ±5%	1Ω ~10MΩ 1Ω ~10MΩ	3.10±0.10	2.60 <sup>+0.15</sup> -0.10	0.55±0.10	0.50±0.20	0.50±0.20
HP10 (2010)	1W	200V	500V	500V	±1% ±5%	1Ω ~10MΩ 1Ω ~10MΩ	5.00±0.10	2.50±0.15	0.55±0.10	0.60±0.25	0.50±0.20
HP12 (2512)	2W	250V	500V	500V	±1% ±5%	1Ω ~10MΩ 1Ω ~10MΩ	6.35±0.10	3.20±0.15	0.55±0.10	0.60±0.25	0.50±0.20
SP12 (2512)	3W	250V	500V	500V	±1% ±5%	1Ω ~10MΩ 1Ω ~10MΩ	6.35±0.10	3.20±0.15	1.10±0.10	0.60±0.25	1.80±0.20

### Note:

- Standard Operating Temp (°C): -55 ~+155 2.) Standard : E-96 series : 1% & E-24 series : 5%
- HP12 1Ω ~ 10MΩ Low TCR available case by case on basis.
- HP low resistance range : 0.1Ω ~ 1Ω available,  
 TCR for HP03, HP05 at +/-200ppm°C, HP06 ~ HP12 at +/-100ppm°C,  
 Electrical performance same as above.

### Recommended solder pad



Size	A Width (mm)	B Pad (mm)	C Spacing (mm)
HP12	3.70	2.80	2.70
SP12			

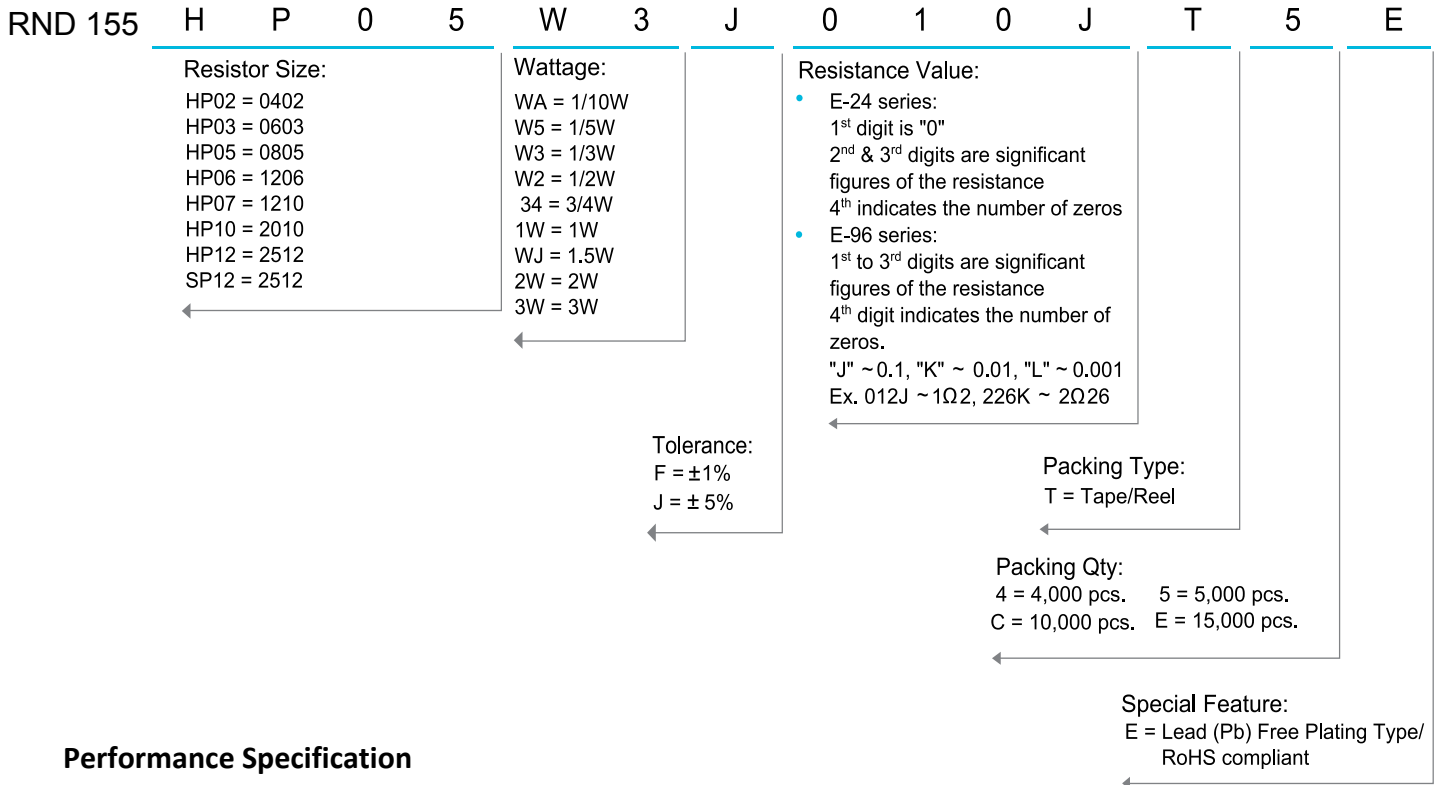
### 4 layers PCB specification:

- Outside 2 layers (Top and Bottom) with copper foil thickness at 2oz.
- Inside 2 layers (Middle layers) with copper foil thickness at 4 oz.

# High Power Thick Film SMD Resistors



## Part Number Codes



## Performance Specification

Temperature Coefficient	HP02 :	1Ω ~ 10Ω	± 400PPM/°C
		10.1Ω ~ 100 Ω	± 200PPM/°C
		>100Ω	± 100PPM/°C
	HP03~ HP12, SP12 :	1Ω ~ 10Ω	≤ ± 200PPM/°C
		10.1Ω ~ 10MΩ	≤ ± 100PPM/°C
Short Time Overload	±5%:	±(2.0% + 0.1Ω)Max	
	±1%:	±(1.0% + 0.1Ω)Max	
Terminal Bending		±(1.0% + 0.05Ω)Max	
Soldering Heat		±(1.0% + 0.05Ω)Max	
Solderability		Min. 95% coverage.	
Humidity (Steady State)	±5%:	±(3.0% + 0.1Ω)Max	
	±1%:	±(0.5% + 0.1Ω)Max	
Load Life in Humidity	±5%:	±(3.0% + 0.1Ω)Max	
	±1%:	±(1.0% + 0.1Ω)Max	
Load Life	±5%:	±(3.0% + 0.1Ω)Max	
	±1%:	±(1.0% + 0.1Ω)Max	
Temperature Cycling	±5%:	±(1.0% + 0.05Ω)Max	
	±1%:	±(0.5% + 0.05Ω)Max	
Insulation Resistance		Min. 1,000 Mega Ohm	
Dielectric Withstanding Voltage		No evidence of flashover, mechanical damage, arcing or insulation breakdown.	