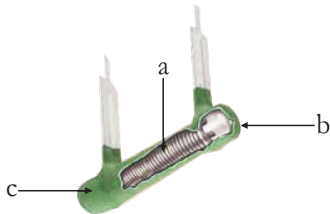




## ● Features

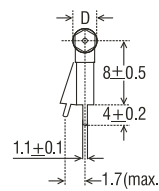
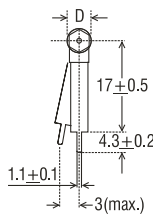
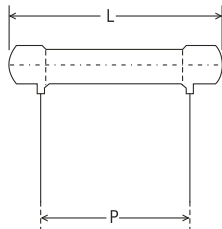
- I Fibre glass substrate .
- II Silicone coated
- III Wirewound resistor
- IV Flame retardant coating compatible
- V Safe and reliable
- VI Character marking

## ● Constructions



a	Alloy resistance wire wound on fibre glass core /Ceramic substrate
b	Mechanically crimped tin plated PCB type termination
c	Flame retardant silicone coating

## ● Dimensions, Applications And Ratings



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Type	Rated Power (W) at 70°C	Dimensions(mm)			Resistance Range		Typical Weight PER PC(gms)
		L ± 1.5	*D ± 1	P ± 1	Min	Max	
FPE-0/1	2.5W	18.2	5.0	10.2	R10	10K	1.05
FPE-0/1	4W	23.3	5.0	15.2	R10	15K	1.25
FPE-0/1	5W	33.4	5.0	25.4	R10	27K	1.90
FPE-0/1	6.5W	43.5	5.0	35.4	R10	39K	2.50
FPE-0/1	8W	53.7	5.0	45.7	R10	56K	2.91

- If the longer stand-off terminal is required, suffix the type with '0'. For e.g. F-2 P-0 to F-8 P-0.
- If the shorter stand-off terminal is required, suffix the type with '1'. For e.g. F-2 P-1 to F-8 P-1.
- The resistance range given is applicable to the standard HFP series resistors. Pulse type resistors available. Please consult factory and note (2) in ordering information.
- \*For resistance values < 1R0, +0.8mm allowed.

## ● Ordering Information

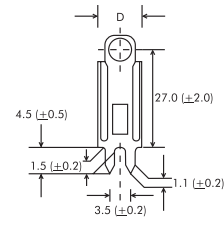
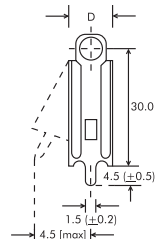
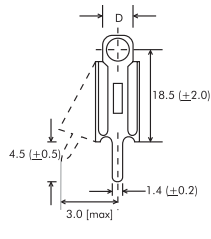
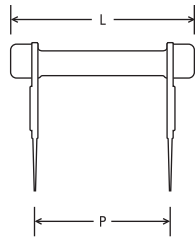
Example:

FPE	4	J	100R
(1)	(2)	(3)	(4)
Series Name	Power Rating	Resistance Tolerance	Resistance Value

- (1) Type: FPE SERIES
- (2) Power Rating: 2.5=2.5W, 4=4W, 5=5W, 6.5=6.5W, 8=8W
- (3) Tolerance: J=±5%, K=±10%
- (4) Resistance Value: 100R=100Ω

## ● Reference Standards

JIS C 5201-1

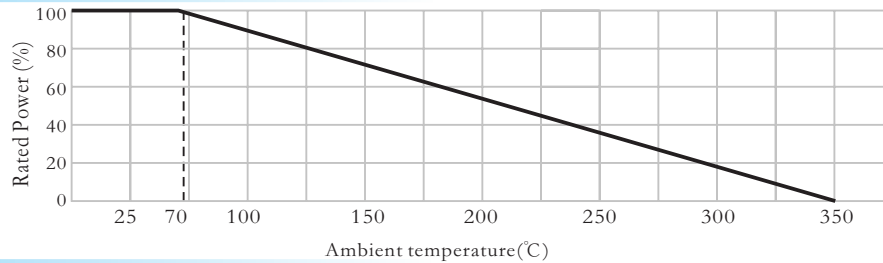


\*Max. displacement of alignment 4.5mm

\* For resistance values <math>\le 1R0</math>, +0.8mm allowed

Type	Rated Power (W) at 70°C	Dimensions (mm)			Resistance Range		Typical Weight PER PC (gms)		
		$L \pm 1.5$	$*D \pm 1$	$P \pm 1$	Min	Max	A terminal	B terminal	C terminal
FPE-A/B/C	4W	23.3	5.0	15.2	R10	15K	1.8	2.2	1.8
FPE-A/B/C	5W	33.4	5.0	25.4	R10	27K	2.2	2.4	2.2
FPE-A/B/C	6.5W	43.5	5.0	35.4	R10	39K	2.9	3.0	2.8
FPE-A/B/C	8W	53.7	5.0	45.7	R10	56K	3.15	3.2	3.15

## Derating Curve



## Performance

Test Items	Specifications
Power Rating (Rated Ambient Temperature)	Full Power dissipation at 70°C and linearly derated to zero at 350°C (Refer Derating Curve above)
Resistance Tolerances Available	$\pm 10\%$ (K); $\pm 5\%$ (J)
Temperature Range	-55°C to +350°C with suitable derating as per derating curve.
Voltage Rating / Limiting Voltage / Max working Voltage	$\sqrt{V = P \times R}$
Maximum Overload Voltage	Varies depending on resistance value, duration of overload and type of pulse waveform (Contact factory for details)
Dielectric Withstanding Voltage / Voltage Proof (based on limiting voltage x 2 for 60secs)	$\Delta R \pm (1\% + R05)$ - No flashover, mechanical damage, arcing or insulation breakdown.
Short Time Overload (5 x Rated power for 5 secs)	$\Delta R \pm (2\% + R05)$
Temperature Co-efficient of Resistance	$\pm 60$ to $\pm 450$ ppm/°C (Depending on resistance value)
Temperature Cycling (Room temperature $\rightarrow$ -55°C $\rightarrow$ Room temperature $\rightarrow$ 200°C $\rightarrow$ Room temperature for 5 cycles)	$\Delta R \pm [2\% + R05]$
Damp Heat (Steady State) (40° C at 93% R.H for 1000 hours - no load applied)	$\Delta R \pm [2\% + R05]$ Average
Endurance - Load Life (70°C with limiting voltage - 1.5 hours on / 0.5 hours off for 1000 hours)	$\Delta R \pm [\leq 3\% + R05]$ Average
Solvent Resistance (IPA for 60 secs $\pm$ 10secs)	No effect on coating/markings
Terminal Tensile Strength	40 Newtons
Resistance to Soldering Heat (260° C - 270° C for 10 secs)	$\Delta R \pm [0.2\% + R05]$ - Typical
Solderability (As per IEC - 60068 - 2 - 20Ta)	Must meet the requirements laid down
Marking	As per IEC Pub. 60062