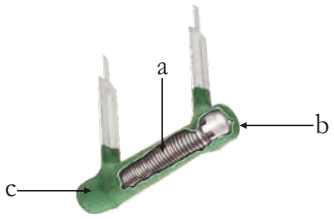
FPE Power Wirewound Resistor

Features

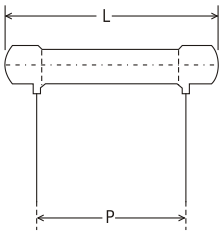
Ⅰ Fibre glass substrate .
Ⅱ Silicone coated
Ⅲ Wirewound resistor
Ⅳ Flame retardant coating compatible
Ⅴ Safe and reliable
Ⅵ Character marking

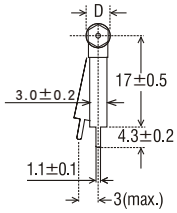
Constructions



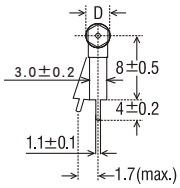
a	Alloy resistance wire wound on fibre glass core /Ceramic substrate
b	Mechanically crimped tin plated PCB type termination
c	Flame retardant silicone coating

Dimensions,Applications And Ratings





0



1

Type	Rated Power (W) at70℃	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'.
- If the shorter stand-off terminal is required, suffix the type with '1'.
- The resistance range given is applicable to the standard FPE 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:

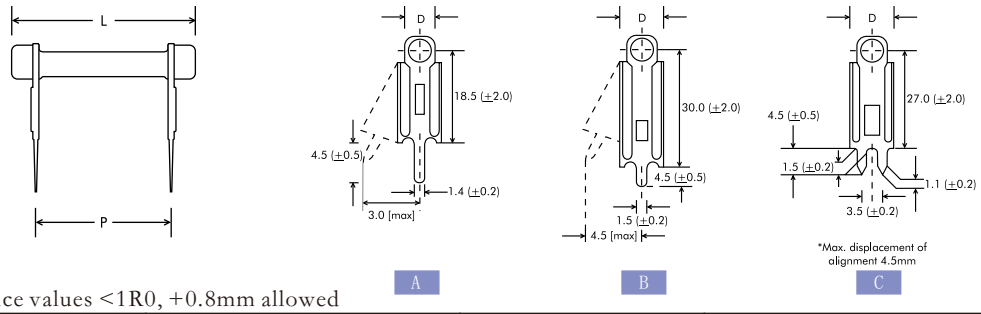
FPE-0	4	J	100R
(1)	(2)	(3)	(4)
Series Name	Power Rating	Resistance Tolerance	Resistance Value

(1)Type: FPE-0 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

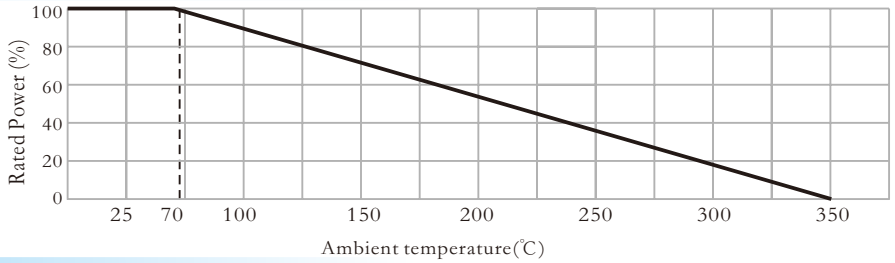
FPE Power Wirewound Resistor



* For resistance values <1R0, +0.8mm allowed

Type	Rated Power (W) at70℃	Dimensions(mm)			Resistance Range		Typical Weight PER PC(gms)		
		L±1.5	*D±1	P±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℃ and linearly derated to zero at 350℃ (Refer Derating Curve above)
Resistance Tolerances Available	±10% (K); ±5% (J)
Temperature Range	-55℃ to +350℃ with suitable derating as per derating curve.
Voltage Rating / Limiting Voltage / Max working Voltage	$\sqrt{V= PxR}$
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)	ΔR ± (1%R0 + R05) - No flashover, mechanical damage, arcing or insulation breakdown.
Short Time Overload (5 x Rated power for 5 secs)	ΔR ± (2%R0 + R05)
Temperature Co-efficient of Resistance	±60 to ±450ppm/℃ (Depending on resistance value)
Temperature Cycling (Room temperature→-55℃ → Room temperature →200℃ →Room temperature for 5 cycles)	ΔR ± [2%R0+R05]
Damp Heat (Steady State) (40° C at 93% R.H for 1000 hours - no load applied)	ΔR ± [2% R0+ R05] Average
Endurance - Load Life (70℃ with limiting voltage - 1.5 hours on /0.5 hours off for 1000 hours)	ΔR ± [≤3%R0 + R05] Average
Solvent Resistance(IPA for 60 secs ± 10secs)	No effect on coating/marking
Terminal Tensile Strength	40 Newtons
Resistance to Soldering Heat (260° C - 270° C for 10 secs)	ΔR ± [0.2%R0 + R05] - Typical
Solderability (As per IEC - 60068 - 2 - 20Ta)	Must meet the requirements laid down
Marking	As per IEC Pub. 60062