

## **HP1 - Series**



#### **Technical Data**

Rated Voltage	~250VAC,DC ;50/60Hz					
Rated Current	21-3.6A					
Operating	-25°C to+85°C including temperature rise.					
Temperature Range	VDE0565-3:-2.3.3and-4.5					
Climatic category	25/85/21acc,to IEC/EN60068-1					
Leakage current measuring method	UL 1283 (3rd Edition):					
	-26 and Fig26. 1 LC200 with 250V AC 60Hz					
	1500V AC for 1 minute between line and ground.					
Withstand Voltage	1800V DC for 1 minute between line and line.					
	Meet over voltage category II(2.5kV) of IEC 664.					
Insulation Resistance	300MΩ minimum at 500V DC between line and					
	ground.					
Voltage Drop	1 volt maximum at rated current					

#### Marking

## **EMI/EMC FILTER**



#### **FEATURES**

- Miniature general purpose PCB mounting type.
- Require small space of PCB.
- Low cost from unique structure.
- Designed for two wire cord system

#### **APPLICATIONS**

- Digital equipment
- Personal computers and peripherals.
- Measuring instruments and medical instruments.
- For use in miniature equipment.
- For TV, VCR monitors and display units.
- For home appliances.

#### Approval

HIP-P** - **	UL, CSA, VDE, SEMKO,	
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## **EMI/EMC FILTER**

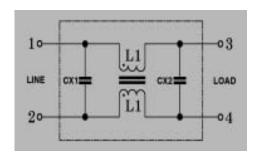
### **HP1 - Series**

#### Guaranteed Minimum Attenuation In [dB]

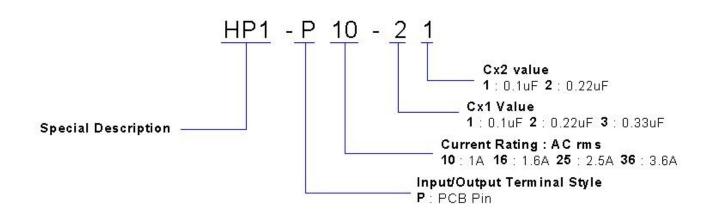
Model No.	Rated Voltage AC.DC[V]	Rated Current [A]			Capacitance Cx2[µF]±20%	Leakage Current Max.[uA]	Temperature Rise Max.[℃]		
HP 1-P 10-**	250	1.0	11.0	*	*	10.0	40		
HP1-P16-**	250	1.6	6.0	*	*	10.0	40		
HP1-P25-**	250	2.5	2.4	*	*	10.0	40		
HP1-P36-**	250	3.6	1.2	*	*	10.0	40		
HP1-P**	*	*	*	0.1	0.1	*	*		
HP1-P**-21	*	*	*	0.22	0.1 *		*		
HP1-P**-22	*	*	·*:	0.22	0.22	*	*		
HP1-P**-31	*	*	*	0.33	0.1	*	*		

#### **Circuit Diagram**

#### 1. HP1-P\*\*-\*\* TYPE



#### **Model Number Construction**



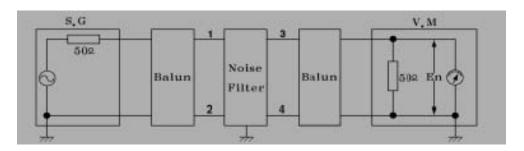
# **EMI/EMC FILTER**

### **HP1 - Series**

### **Guaranteed Minimum Attenuation in (dB)**

Model	Common mode [MEz]						Differential mode [MBz]							
	0.15	0.45	1	2	5	10	30	0.15	0.45	1	2	5	10	30
HP1-P10	40	54	37	30	22	17	4	25	60	60	60	60	50	35
HP1-P10-21	37	47	40	33	24	16	1	38	68	71	65	58	52	38
HP1-P10-22	36	45	39	32	21	15	1	42	67	66	60	52	49	40
HP1-P10-31	39	50	47	39	29	22	5	40	68	70	64	56	52	45
HP1-P16	33	45	38	31	22	17	4	10	50	60	60	60	50	35
HP1-P25	25	37	39	31	22	18	5	10	40	60	60	60	50	40
HP1-P36	20	28	30	30	27	21	8	10	34	60	60	55	50	45

### **Attenuation Measuring Method**



OSC Level: 0dB

Insertion loss =  $-20\log(E1/E2)$  [dB]

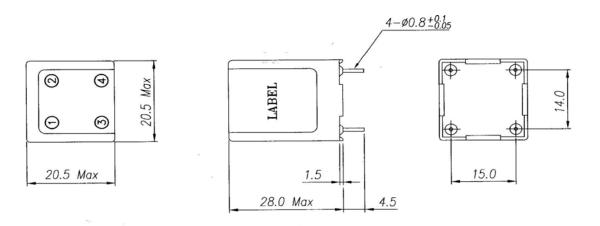
E1: Level with the Noise Filter in the circuit E2: Level without the Noise Filter in the circuit



# **EMI/EMC FILTER**

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### Shape and Dimension Unit: (mm



\*General Tolerance: ±0.5