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With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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# KHV Series 3.5 Watt

## DC/DC CONVERTER

3.5 WATT HIGH VOLTAGE DC/DC CONVERTER



### **FEATURES**

- Max. Output Capacity 3.5W
- Adjustable Output Voltage from 0 to 100%
- Control Voltage 0 to +6V
- Over Current Protection
- On/Off Control (Optional)
- Adjustable Voltage by Variable Resistor
- RoHS Compliant

#### DISCRIPTION

The KHV series is an ultra-compact, medium-high voltage DC/DC converters with 5sided metal shield case. Output voltage can be adjusted by external voltage or external variable resistor, with built in short circuit and over current protection providing this unit with high reliability and long life.

### **ELECTRICAL SPECIFICATIONS**

All specifications are typical at nominal input, full load, and 25° C unless otherwise noted.

INPUT SPECIFICATIONS		
Input Voltage Range	10.8 ~16.5VDC	
Input Current	430mA	

OUTPUT SPECIFICATIONS		
Output Current (see table)	See Chart	
Voltage Accuracy	± 5% or less	
Ripple and Noise	See Chart	
Line Regulation, Full Load	0.01% typ	
Load Regulation (0% to 100% of FL)	0.01%	
Output Voltage Control	Either with 0V to $+6V$ external voltage or a $5K\Omega$ external variable resistor.	
Over Current Protection	Drooping characteristic, built-in automatic return circuit, activated at 105% or more	
On/Off Control	Between 2pin and 5pin, on when open, and OFF when short circuited.	

GENERAL SPECIFICATIONS		
Isolation (Input – Output)  None Isolated (2 pin and 6 pin internally connected)		
Ripple Noise(typ)	100mVp-p	
MTBF(Calculated)	alculated) 400K hours	

ENVIRONMENTAL SPECIFICATIONS		
Operating Temperature	-10° C ~ +50° C	
Storage Temperature Range	-25° C to +85° C	
Relative Humidity	20% to 95% RH	

PHYSICAL SPECIFICATIONS		
Metallic Shielding	5 Sided	
Dimensions	60 x 40 x 15 mm	



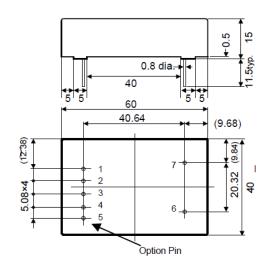
## KHV Series 3.5 Watt

MODEL	INPUT VOLTAGE	OUTPUT VOLTAGE	ADJUSTABLE OUTPUT VOLTAGE RANGE	OUTPUT CURRENT	INPUT CURRENT	RIPPLE NOISE
KHV12-350S10P	10.8 ~ 16.5VDC	+350VDC	0 ~ + 350 VDC	0 ~ 10mA	430mA	100mVp-p
KHV12-350S10N	10.8 ~ 16.5VDC	-350VDC	0 ~ - 350 VDC	0 ~ 10mA	430mA	100mVp-p

#### Note

- 1. The output voltage will be controlled by applying the Vcont voltage. Using an adjustable resistor or an external voltage, voltage should be applied on the Vcont in in order to control the output voltage. When Vcont voltage=0V, the output voltage (output residual voltage) should be less than 2.0% of the max output voltage.
- 2. The ON/OFF control is optional. When ordering, add a suffix "R" to the end of the product name. (example: KHV12-350S10PR; R=Remote Control)

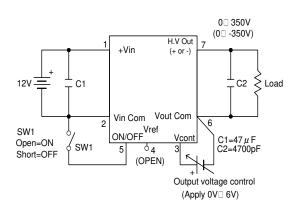
### **DIMENSIONS:**



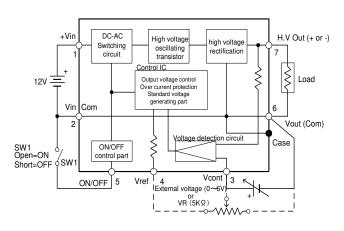
### **PIN OUTPUT:**

PIN CONNECTION		
PIN	DEFINE	
1	+VIN	
2	-VIN	
3	Vcont	
4	Vref	
5	ON/OFF	
6	Vout(Com)	
7	HVout	

#### **TEST CIRCUIT:**



### **BLOCK DIAGRAM:**



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