

DC-DC CONVERTERS

DC/DC CONVERTERS

Supertek WRS series is unparalleled in DC-DC converters.

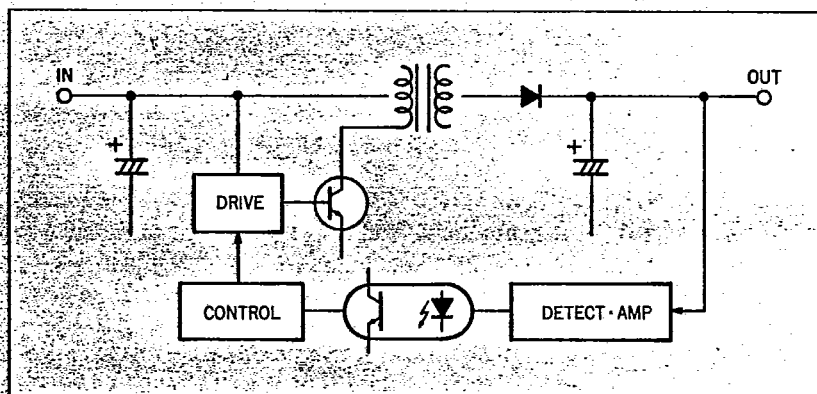
It can be operated with a wide ranging frequent input voltage of 10V to 53V.

No need input selection, and simplified system design and inventory control.

Supertek CRS series is a 4.5-6V input version.

The combination of WRS and CRS series will significantly improve your productivity.

BLOCK DIAGRAM(WRS/CRS)

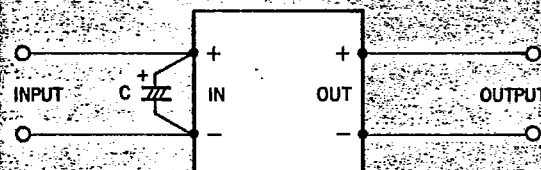


WRS SERIES SPECIFICATIONS

Model	3W GROUP				6W GROUP			
	WRS-3-5	WRS-3-12	WRS-3-15	WRS-3-24	WRS-6-5	WRS-6-12	WRS-6-15	WRS-6-24
Input Voltage Range	DC10~53V				DC10~53V			
Output Voltage	5V	12V	15V	24V	5V	12V	15V	24V
Output Current	0.6A	0.25A	0.2A	0.13A	1.2A	0.5A	0.4A	0.25A
Efficiency(typical)	65%	73%	73%	75%	65%	73%	73%	75%
Voltage Accuracy	± 1%(max)				± 1%(max)			
Line Regulation	0.4%(max)				0.4%(max)			
Load Regulation	0.8%(max)				0.8%(max)			
Ripple and Noise(bandwidth 100MHz)	120mV	150mV	150mV	200mV	120mV	150mV	150mV	200mV
Over Current Protection	built in(current foldback with automatic recovery)				built in(current foldback with automatic recovery)			
Operating Temperature	-5 to +70°C				-5 to +70°C			
Storage Temperature	-30 to +85°C				-30 to +85°C			
Operating Humidity	30 to 80% RH(non-condensing)				30 to 80% RH(non-condensing)			
Storage Humidity	20 to 95% RH(non-condensing)				20 to 95% RH(non-condensing)			
Dielectric Withstanding Voltage	Input-Output AC500V/1 min				Input-Output AC500V/1 min			

WRS: 10-53V DC INPUT**CRS: 4.5-6V DC INPUT****TO IMPROVE CONDUCTED NOISE**

It is recommended to add a capacitor externally to input as shown in Table 1.

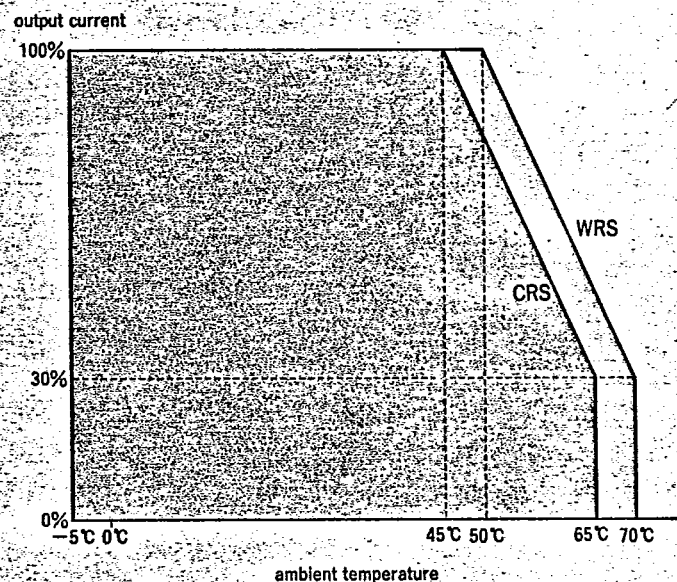


INPUT VOLTAGE RANGE	MODEL	
	CRS-3-□	CRS-6-□
4.5~6V	over 220μF	over 330μF
	WRS-3-□	WRS-6-□
10~20V	over 330μF	over 470μF
20~35V	over 220μF	over 330μF
35~53V	over 100μF	over 220μF

[Table 1]

FEATURES

- Wide Range Input
- Super-mini, On-board Type
- High Switching Frequency
300kHz (WRS)
- High Reliability
- High Quality
- High Stability
- Over Current Protection built-in
- Isolated Output from Input
- Both Polarities on Output
- Series Operation available
- MTBF 300,000 Hours

TEMPERATURE RATINGS

Notes: 3.5%/°C derating for 50°C to 70°C (WRS)
45°C to 65°C (CRS)

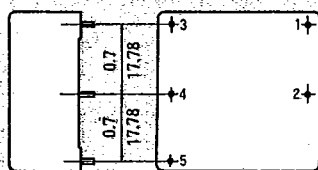
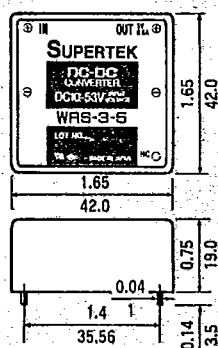
SAFETY

UL : File No. E81060

CSA : Pending

2-YEAR WARRANTY**CRS SERIES SPECIFICATIONS**

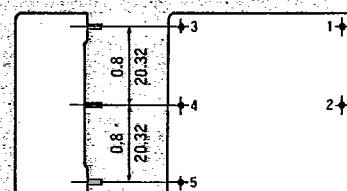
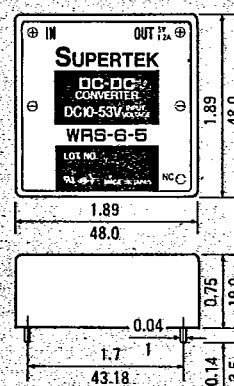
Model	3W GROUP				6W GROUP			
	CRS-3-5	CRS-3-12	CRS-3-15	CRS-3-24	CRS-6-5	CRS-6-12	CRS-6-15	CRS-6-24
Input Voltage Range	DC4.5~6.0V				DC4.5~6.0V			
Output Voltage	5V	12V	15V	24V	5V	12V	15V	24V
Output Current	0.6A	0.25A	0.2A	0.13A	1.0A	0.42A	0.34A	0.21A
Efficiency(typical)	60%	62%	62%	64%	60%	62%	62%	64%
Voltage Accuracy	±1%(max)				±1%(max)			
Line Regulation	0.4%(max)				0.4%(max)			
Load Regulation	0.8%(max)				0.8%(max)			
Ripple and Noise(bandwidth 100MHz)	120mV	150mV	150mV	200mV	120mV	150mV	150mV	200mV
Over Current Protection	built in(current foldback with automatic recovery)				built in(current foldback with automatic recovery)			
Operating Temperature	-5 to +65°C				-5 to +65°C			
Storage Temperature	-30 to +85°C				-30 to +85°C			
Operating Humidity	30 to 80% RH(non-condensing)				30 to 80% RH(non-condensing)			
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Dielectric Withstanding Voltage	Input-Output AC500V/1 min				Input-Output AC500V/1 min			

OUTLINE DIMENSIONS(WRS/CRS)**3W GROUP**

Pin assignment

- 1 in +
- 2 in -
- 3 out +
- 4 out -
- 5 no connection

Weight: 30g

6W GROUP

Pin assignment

- 1 in +
- 2 in -
- 3 out +
- 4 out -
- 5 no connection

Weight: 50g

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