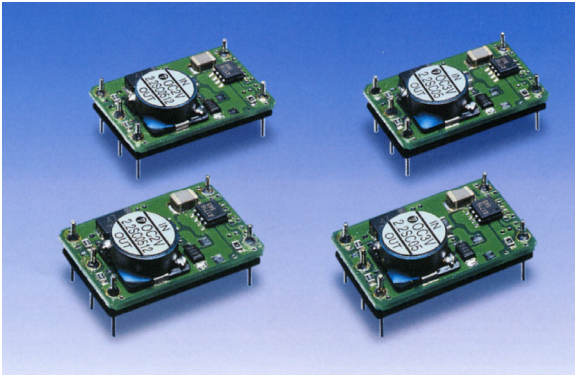


# 4.6~28.8 WATT NON-ISOLATED DC-DC CONVERTER

## OC1V –SC1224



Specifications<DC/DC>	Model								
	OC1**SC1224/48 SINGLE		OC1-3.3SC1224		OC1-05SC1224		OC1-06SC1224		OC1-24SC48
Input Voltage DC[V]			12	24	12	24	12	24	48
Input Range DC[V]			10.2 to 32						40.8 to 56
Inrush Current [A]			Not specified						
Input Range									
at no load [mA](typical)	4	5	5	3	5	3	5		
at full load[mA](typical)	814	416	693	355	814	416	645		
Input Current when Remote controll is off	0.2	0.56	0.24	0.6	0.24	1.15	0.56		
Line Back Noise [mVp-p](typical)			1	1	1	1	3		
Efficiency [%] (typical) *1	78	75	84	82	86	84	93		

Specifications<DC/DC>	Model			
	OC1-3.3SC1224	OC1-05SC1224	OC1-06SC1224	OC1-24SC48
<b>OC1**SC1224/48 SINGLE</b>				
Output Voltage [V]	3.3	5	6	24
Output Current [A]	1.4	1.4	1.4	1.2
Voltage Tolerance +/-[mV](maximum)	100	150	180	720
Ripple and Noise [mVp-p](maximum) *2	200			
Regulation				
a.Static Line Regulation [mV](maximum)	18	25	30	120
b.Dynamic Line Regulation +/-[mV](maximum) *3	500	600	600	400
c.Static Load Regulation +/-[mV](maximum) *4	18	25	30	120
d.Temperature Coefficient *5	0.03%/°C(maximum) at temperature -20 to +71°C			
e.Drift[mV](maximum) *6	30	40	45	135
f.Dynamic Load Regulation +/- [mV](maximum) *7	200			
g.Recovery Time *3,*7	5mS(typical)			
Rise up time	5mS(maximum) at rated input/output			
Hold up time	Not specified			
<b>Functions</b>				
Overcurrent Protection	Current Limiting with automatic recovery			
≥ 110% of Rated Output Current [A]	1.54	1.54	1.54	1.54
Overvoltage Protection	6	6	7.5	12
Remote Control	Turn on by inputing voltage(4.5 to 56V) between "RC"pin and "0V"pin .Put a 5k ohm resistor between "+in"pin and "RC"pin when remote on/off is not used			
Remote Sence	Not available			
Trimming of output voltage[mV]	Not available			
Input Fuse	Installed[2A]			
<b>Environmental</b>				
Operating Temperature	-20 to + 71°C			
(derating)	2%/°C(50°C to 71°C) (out of warranty ≥ 71°C)			
Operating Humidity	20-90%/RH(non-condensing)			
Storage Temperature	-20 to +85°C			
Storage Humidity	20 to 90%/RH(non-condensing)			
Vibration	5-10Hz:10mm double amplitude,10-55Hz:2G,3minutes' period for 30minutes each along X,Y,Z axes(non-operating)			
Shock	3 0G			
Cooling	Convection			
? Weight (typical)	open board type:8g			

Conditions:

\*1 at 25°C and rated input/output

\*2 measured by a bayonet probe at the output connector at a 0 to 100MHz bandwidth

\*3 when input voltage changed from 10.2V to 32V rapidly at rated output

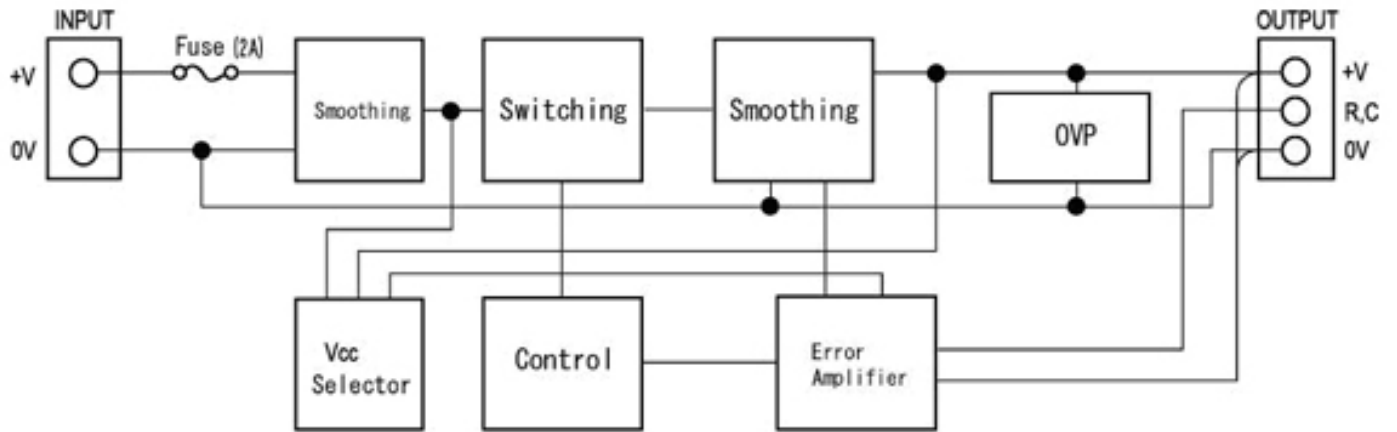
\*4 when output current changed from 0mA to rated current keeping the current of other channel below minimum rated current at rated input

\*5 at -20 to +71°C

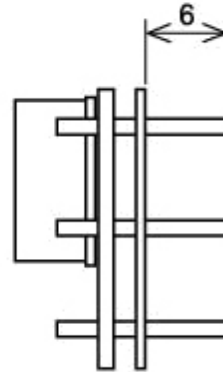
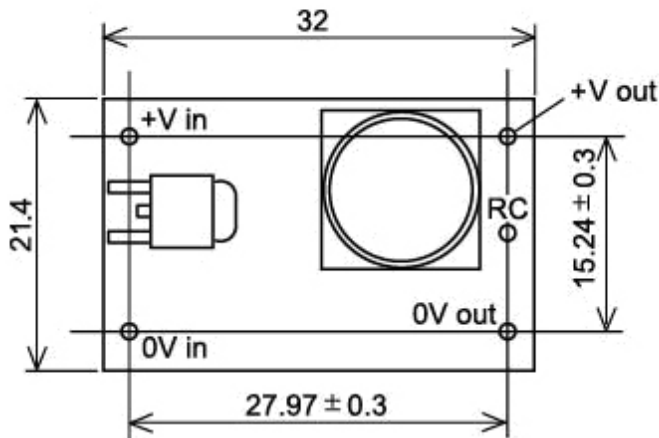
\*6 for 7hours from 1hour after switch-on at 25°C and rated input/output

\*7 when output current changed from 25% of rated current to 75% rapidly at rated input

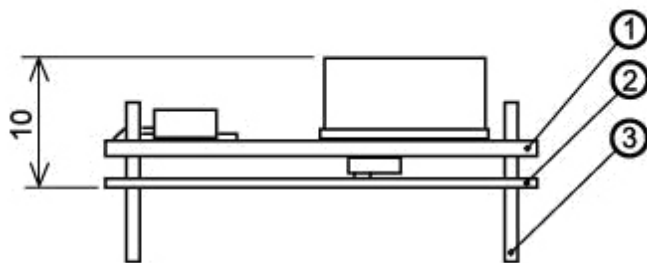
## Block Diagram



## Dimension Diagram



Turn on by inputting voltage (4.5 to 56V) between "RC" pin and "0V" pin .Put a 5k ohm resistor between "+ in" pin and "RC" pin when remote on/off is not used



① Double-sided PCB FR4t=1.0

② t=0.5 Insulator UL94V0

③ 1.0DIA PIN Material :BsB 2700 1/2H

Solder Plating

\*Tolerance  $\pm 0.5$

