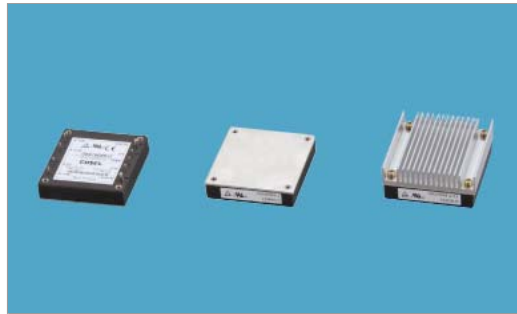


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CBS10048



Features

- Compact DC-DC Converter, "HALF BRICK" which has been standard size for Telecommunication Market
- High efficiency
- High density
- High reliability : not built-in aluminum and tantalum electrolytic capacitor
- Built-in Remote ON/OFF
- Mounting hole (M3 tapped)
- Built-in Over Current Protection
- Built-in Over Voltage Protection
- Built-in Thermal Protection
- RoHS Compliant

Safety Agency Approvals

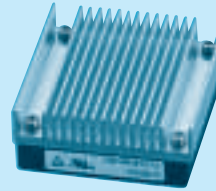
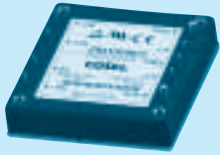
UL60950, C-UL (CSA60950) recognized, TUV approved

CE Markings

Low Voltage Directive

5 year warranty(refer to Instruction Manual)

Model	Input Voltage [V]	Output Wattage [W]	DC Output [V/A]
CBS100481R8	DC 36 - 76	42.12	1.8V 23.4A
CBS100482R5	DC 36 - 76	58.5	2.5V 23.4A
CBS1004803	DC 36 - 76	77.2	3.3V 23.4A
CBS1004805	DC 36 - 76	100	5V 20A
CBS1004812	DC 36 - 76	100.8	12V 8.4A
CBS1004815	DC 36 - 76	100.5	15V 6.7A
CBS1004824	DC 36 - 76	100.8	24V 4.2A
CBS1004828	DC 36 - 76	100.8	28V 3.6A



- ① Series name
- ② Single output
- ③ Output wattage
- ④ Input voltage
24:DC18 - 36V
48:DC36 - 76V
- ⑤ Output voltage
- ⑥ Optional
R :with Remote ON/OFF
Positive logic control
T :with Mounting hole
φ3.4 thru
with Addition of a Heat sink

MODEL	CBS100241R8	CBS100242R5	CBS1002403	CBS1002405	CBS1002412	CBS1002415	CBS1002424	CBS1002428
MAX OUTPUT WATTAGE[W]	42.12	58.50	77.2	100.0	100.8	100.5	100.8	100.8
DC OUTPUT	1.8V 23.4A	2.5V 23.4A	3.3V 23.4A	5V 20A	12V 8.4A	15V 6.7A	24V 4.2A	28V 3.6A

SPECIFICATIONS

	MODEL	CBS100241R8	CBS100242R5	CBS1002403	CBS1002405	CBS1002412	CBS1002415	CBS1002424	CBS1002428	
INPUT	VOLTAGE[V]	DC18 - 36								
	CURRENT[A]	2.47typ	3.17typ	4.07typ	5.02typ	4.77typ	4.81typ	4.83typ	4.83typ	
	EFFICIENCY[%]	71typ	77typ	79typ	83typ	88typ	87typ	87typ	87typ	
OUTPUT	VOLTAGE[V]	1.8	2.5	3.3	5	12	15	24	28	
	CURRENT[A]	23.4	23.4	23.4	20	8.4	6.7	4.2	3.6	
	LINE REGULATION[mV]	10max	10max	10max	10max	24max	30max	48max	56max	
	LOAD REGULATION[mV]	10max	10max	10max	10max	24max	30max	48max	56max	
	RIPPLE[mVp-p]	-20 to +100°C	80max	80max	80max	80max	120max	120max	120max	120max
		-40 to -20°C	120max	120max	120max	120max	150max	150max	150max	150max
	RIPPLE NOISE[mVp-p]	-20 to +100°C	120max	120max	120max	120max	150max	150max	150max	150max
		-40 to -20°C	200max	200max	200max	200max	200max	200max	250max	250max
	TEMPERATURE REGULATION[mV]	0 to +65°C	35max	35max	35max	50max	120max	150max	240max	280max
		-40 to +100°C	66max	66max	66max	100max	240max	300max	480max	560max
DRIFT[mV]	16max	16max	16max	20max	40max	60max	90max	90max		
START-UP TIME[ms]	200max (DCIN 24V, Io=100%)									
OUTPUT VOLTAGE ADJUSTMENT RANGE[V]	Fixed (TRM pin open), adjustable by external resistor									
OUTPUT VOLTAGE SETTING[V]	1.70 - 1.98	1.98 - 2.75	1.98 - 3.63	3.0 - 5.5	7.2 - 13.2	9.0 - 16.5	14.4 - 26.4	16.8 - 30.8		
OVERCURRENT PROTECTION	Works over 105% of rating and recovers automatically									
OVERVOLTAGE PROTECTION[V]	2.16 - 2.88	3.00 - 4.00	4.00 - 5.50	5.75 - 7.00	13.80 - 16.80	17.25 - 21.00	27.60 - 33.60	32.20 - 39.20		
REMOTE SENSING	Provided									
REMOTE ON/OFF	Provided (Negative logic L : ON, H : OFF)									

MODEL	CBS100481R8	CBS100482R5	CBS1004803	CBS1004805	CBS1004812	CBS1004815	CBS1004824	CBS1004828
MAX OUTPUT WATTAGE[W]	42.12	58.50	77.2	100.0	100.8	100.5	100.8	100.8
DC OUTPUT	1.8V 23.4A	2.5V 23.4A	3.3V 23.4A	5V 20A	12V 8.4A	15V 6.7A	24V 4.2A	28V 3.6A

SPECIFICATIONS

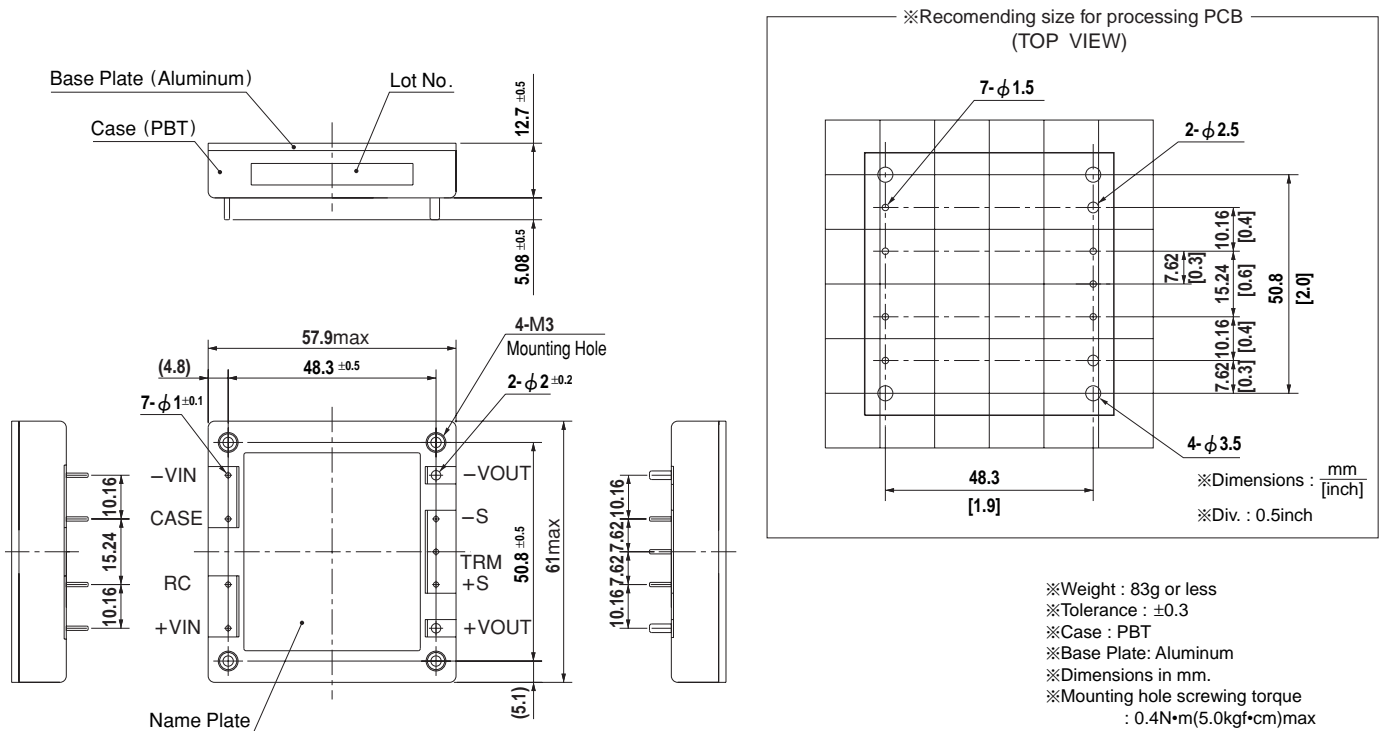
	MODEL	CBS100481R8	CBS100482R5	CBS1004803	CBS1004805	CBS1004812	CBS1004815	CBS1004824	CBS1004828	
INPUT	VOLTAGE[V]	DC36 - 76								
	CURRENT[A]	1.24typ	1.58typ	2.01typ	2.48typ	2.36typ	2.38typ	2.39typ	2.39typ	
	EFFICIENCY[%]	71typ	77typ	80typ	84typ	89typ	88typ	88typ	88typ	
OUTPUT	VOLTAGE[V]	1.8	2.5	3.3	5	12	15	24	28	
	CURRENT[A]	23.4	23.4	23.4	20	8.4	6.7	4.2	3.6	
	LINE REGULATION[mV]	10max	10max	10max	10max	24max	30max	48max	56max	
	LOAD REGULATION[mV]	10max	10max	10max	10max	24max	30max	48max	56max	
	RIPPLE[mVp-p]	-20 to +100°C	80max	80max	80max	80max	120max	120max	120max	120max
		-40 to -20°C	120max	120max	120max	120max	150max	150max	150max	150max
	RIPPLE NOISE[mVp-p]	-20 to +100°C	120max	120max	120max	120max	150max	150max	150max	150max
		-40 to -20°C	200max	200max	200max	200max	200max	200max	250max	250max
	TEMPERATURE REGULATION[mV]	0 to +65°C	35max	35max	35max	50max	120max	150max	240max	280max
		-40 to +100°C	66max	66max	66max	100max	240max	300max	480max	560max
DRIFT[mV]	16max	16max	16max	20max	40max	60max	90max	90max		
START-UP TIME[ms]	200max (DCIN 48V, Io=100%)									
OUTPUT VOLTAGE ADJUSTMENT RANGE[V]	Fixed (TRM pin open), adjustable by external resistor									
OUTPUT VOLTAGE SETTING[V]	1.70 - 1.98	1.98 - 2.75	1.98 - 3.63	3.0 - 5.5	7.2 - 13.2	9.0 - 16.5	14.4 - 26.4	16.8 - 30.8		
OVERCURRENT PROTECTION	Works over 105% of rating and recovers automatically									
OVERVOLTAGE PROTECTION[V]	2.16 - 2.88	3.00 - 4.00	4.00 - 5.50	5.75 - 7.00	13.80 - 16.80	17.25 - 21.00	27.60 - 33.60	32.20 - 39.20		
REMOTE SENSING	Provided									
REMOTE ON/OFF	Provided (Negative logic L : ON, H : OFF)									

GENERAL SPECIFICATIONS

ISOLATION	INPUT-OUTPUT	DC1,500V or AC1,000V 1minute, Cutoff current = 10mA, DC500V 50MΩ min(20±15°C)
	INPUT-CASE PIN, BASE PLATE	DC1,500V or AC1,000V 1minute, Cutoff current = 10mA, DC500V 50MΩ min(20±15°C)
	OUTPUT-CASE PIN, BASE PLATE	AC500V 1minute, Cutoff current = 100mA, DC500V 50MΩ min(20±15°C)
ENVIRONMENT	OPERATING TEMP., HUMID. AND ALTITUDE	-40 to +100°C (On aluminum base plate), 20 - 95%RH (Non condensing) (Refer to DERATING CURVE), 3,000m (10,000feet) max
	STORAGE TEMP., HUMID. AND ALTITUDE	-40 to +100°C, 20 - 95%RH (Non condensing), 9,000m (30,000feet) max
	VIBRATION	10 - 55Hz, 49.0m/s ² (5G), 3minutes period, 60minutes each along X, Y and Z axis
SAFETY	IMPACT	196.1m/s ² (20G), 11ms, once each along X, Y and Z axis
	AGENCY APPROVALS	UL60950-1, C-UL, EN60950-1
OTHERS	CASE SIZE/WEIGHT	57.9×12.7×61.0mm (W×H×D) / 83g max
	COOLING METHOD	Conduction cooling (e.g. heat radiation from the aluminum base plate to the attached heat sink)

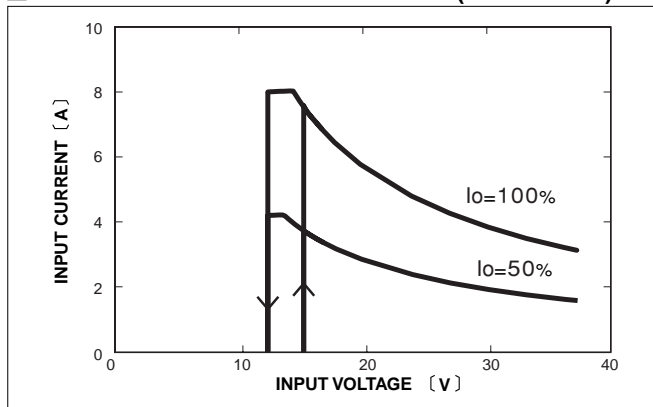
- *1 At rated input(DC24V,DC48V) and rated load.
- *2 Ripple and ripple noise is measured by using measuring board with recommended capacitor Co & the film capacitor 0.1 μF. Measured by 20MHz oscilloscope or Ripple-Noise meter (Equivalent to KEISOKU-GIKEN:RM101).
- *3 Drift is the change in DC output for an eight hour period after a half-hour warm-up at 25°C, with the input voltage held constant at the rated input/output.
- *4 When the input voltage is in the range of DC18 - 20V, DC36 - 40V output voltage adjustment range is 60 - 105% (except for 1R8/2R5).

External view

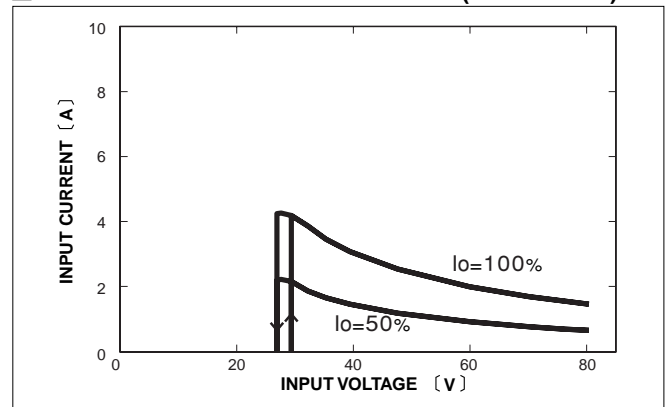


Performance data

■ INPUT CURRENT CHARACTERISTICS (CBS1002428)



■ INPUT CURRENT CHARACTERISTICS (CBS1004828)



CBS