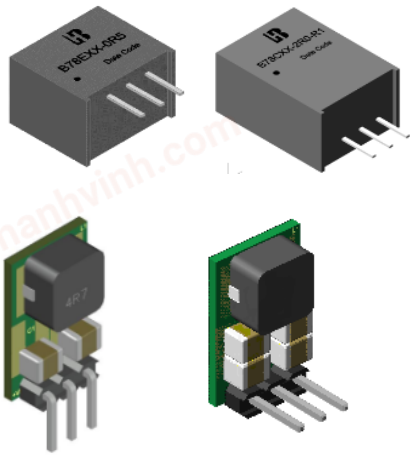
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DC-DC Converters (Non-isolated) 1.6W to 24W DIP

B78C/E/HB/OBxx series

Pulse a YAGEO company



- *Input Voltage Range: 6-36V, 15-36V, 18-36V, 9-7V and 17-72V*
- *Output Voltage Range: 3.3V to 12V, Single*
- *Power Level: 1.6W to 24W*
- *Isolation: 1.5kVdc*
- *Efficiency : up to 97% , no heatsinks required*
- *Operating Temperature Range: -40°C to +85°C*
- *Additional Features:*
  - *IEC/EN 62368-1 Approved*
  - *Low Ripple and Noise*
  - *Output Short Circuit protection*
  - *Thermal Shut-Down*

Electrical Specification @ 25°C（For B78EXX-0R5）							
Model Number	Input Voltage Range	Output Voltage(V)	Output Current (mA)		Eff . (%).		Capacitive Load(uF) Max.
			Min. Load	Full. Load	Vin_Min.	Vin_Max.	
B78E03-0R5	6-30V Nominal:24V	3.3	0	500	90	80	680
B78E05-0R5	7-36V Nominal:24V	5	0	500	94	84	680
B78E6R5-0R5	8-36V Nominal:24V	6.5	0	500	94	84	470
B78E12-0R5	15-36V Nominal:24V	12	0	500	97	92	100
B78E15-0R5	18-36V Nominal:24V	15	0	500	97	94	100

Electrical Specification @ 25°C（For B78EXX-1R0）							
Model Number	Input Voltage Range	Output Voltage(V)	Output Current (mA)		Eff . (%)		Capacitive Load, max. (uF)
			Min. Load (1)	Full. Load	Vin_min	Vin_max	
B78E03-1R0-R2	6-36V Nominal:24V	3.3	0	1000	88	78	1000
B78E05-1R0-R2	7-36V Nominal:24V	5	0	1000	92	84	1000
B78E12-1R0-R2	15-36V Nominal:24V	12	0	1000	96	92	1000

Electrical Specification @ 25°C（For B78CXX-2R0-R1）							
Model Number	Input Voltage Range	Output Voltage(V)	Output Current (mA)		Eff . (%)		Capacitive Load, max. (uF)
			Min. Load (1)	Full. Load	Vin_min	Vin_max.	
B78C05-2R0-R1	6.5-36V Nominal:12V	5	0	2000	93	90	660
B78C12-2R0–R1	15-36V Nominal:24V	12	0	2000	97	93	470

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DC-DC Converters (Non-isolated) 1.6W to 24W DIP

B78C/E/HB/OBxx series

Pulse a YAGEO company

Electrical Specification @ 25°C （For B78HBXX-0R5）							
Model Number	Input Voltage Range	Output Voltage(V)	Output Current (mA)		Eff . (%)		Capacitive Load, max. (uF)
			Min. Load (1)	Full. Load	Vin_min	Vin_max.	
B78HB05-0R5	9-72V Nominal:48V	5.0	0	500	90	81	330
B78HB12-0R5	17-72V Nominal:48V	12	0	500	95	88	330

Electrical Specification @ 25°C （For B78OXX-1R5）							
Model Number	Input Voltage Range	Output Voltage(V)	Output Current (mA)		Eff . (%)		Capacitive Load, max. (uF)
			Min. Load (1)	Full. Load	Vin_min	Vin_max.	
B78O03-1R5-R2	7-36V Nominal:12V	3.3	0	1500	93	91	1200
B78O05-1R5-R2	7-36V Nominal:12V	5	0	1500	95	92	660

Electrical Specification @ 25°C （For B78OXX-3R0）							
Model Number	Input Voltage Range	Output Voltage(V)	Output Current (mA)		Eff . (%)		Capacitive Load, max. (uF)
			Min. Load (1)	Full. Load	Vin_min	Vin_max.	
B78O05-3R0	7-36V Nominal:12V	5	0	3000	94	92	2200

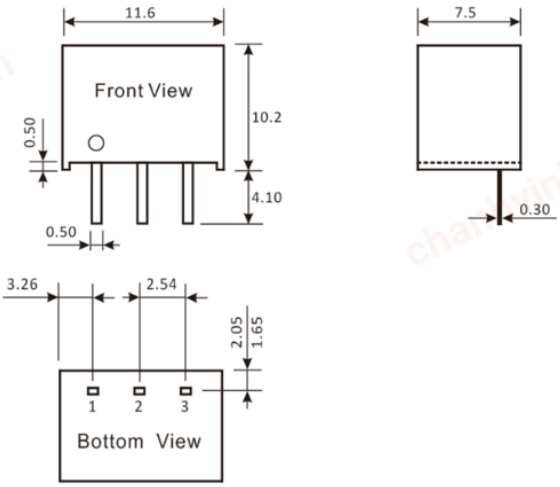
Process and Materials

1. Storage Temperature: -55°C to +125°C
2. Compliance to J-STD:
   A. J-STD-002: Solderability of Dipping at 255~260°C
   B. J-STD-020: Moisture Sensitive Level 1
3. All parts are packaged in tubes - see page 5 and 6 for details
4. For full electrical characteristics, curves and applications, please refer to the detailed specification sheets available on request.
5. Lead Frame: Cooper Alloy
   Underplated: Half Hard Ductile Nickel 40-118" (1.0 -3.0um)
   Over plated: 100% Tin electro-deposited per 240~400u"Min(6~10um)
   Finish: Matte finish 100% Tin solder

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Mechanical

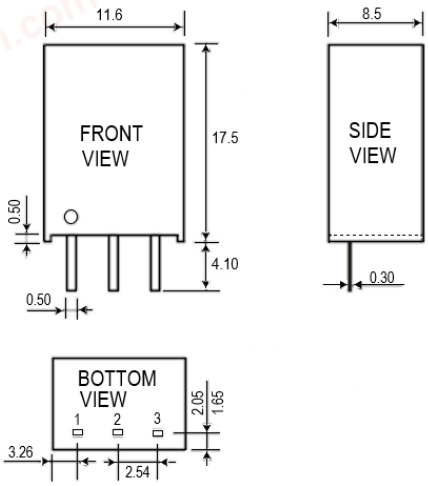
B78EXX-0R5 / B78EXX-1R0-R2



	B78EXX-0R5
PIN	Define
1	VIN
2	GND
3	Vout

Unit: mm
Pin Section tolerances +/-0.1
General tolerances +/-0.5

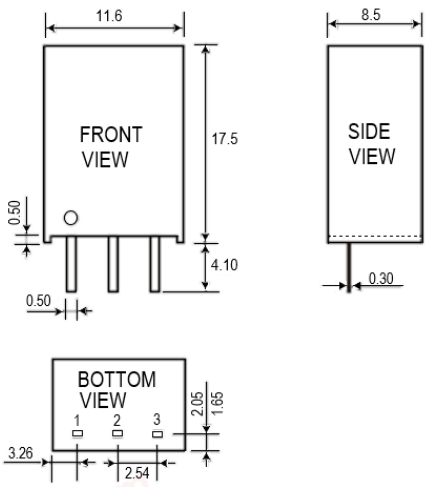
B78CXX-2R0-R1



	B78CXX-2R0-R1
PIN	Define
1	Positive
2	Common(Ground)
3	Positive Output

Unit: mm
Pin Section tolerances +/-0.1
General tolerances +/-0.5

B78HBXX-0R5

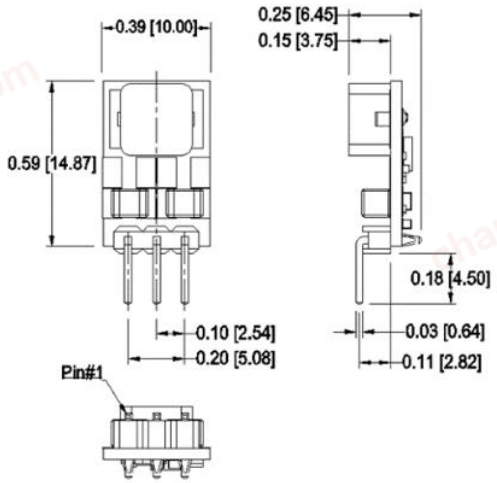


	B78HBXX-0R5
PIN	Define
1	VIN
2	GND
3	Vout

Unit: mm
Pin Section tolerances +/-0.1
General tolerances +/-0.5

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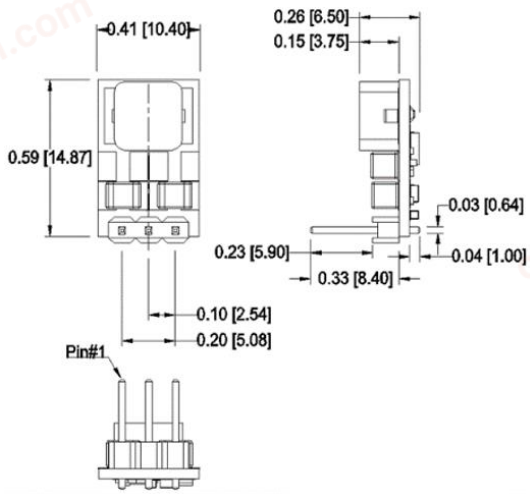
B78OXX-1R5-R2



	B78OXX-1R5-R2
PIN	Define
1	Positive Input
2	Common(Ground)
3	Positive Output

Unit: mm(inch for reference only)
Pin Section tolerances +/-0.1
General tolerances +/-0.5

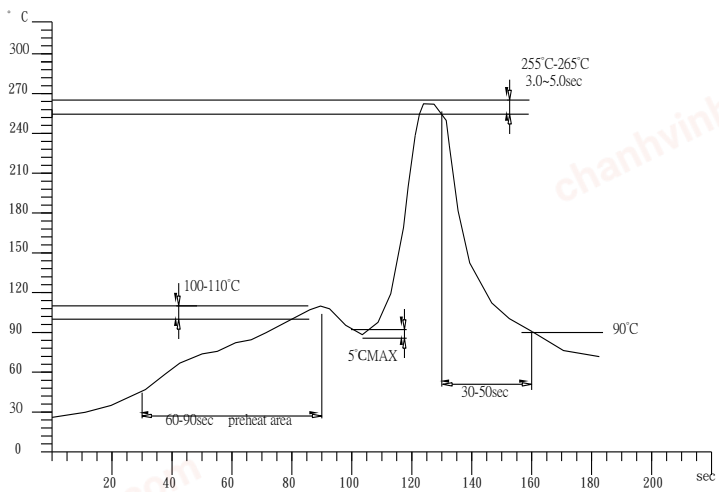
B78OXX-3R0



	B78OXX-3R0
PIN	Define
1	Positive Input
2	Common(Ground)
3	Positive Output

Unit: mm(inch for reference only)
Pin Section tolerances +/-0.1
General tolerances +/-0.5

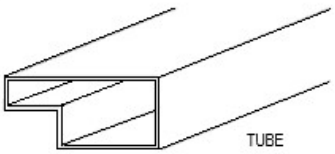
Wave Soldering Temperature Curve

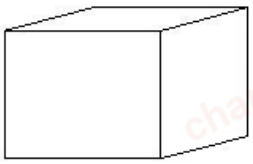


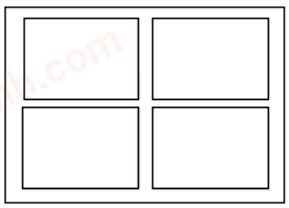
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Carton Package

B78EXX-0R5、B78EXX-1R0-R2

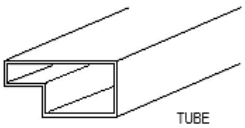


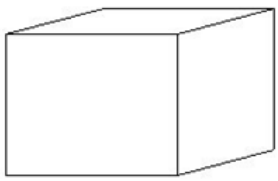

INNER CARTON:240*200*110

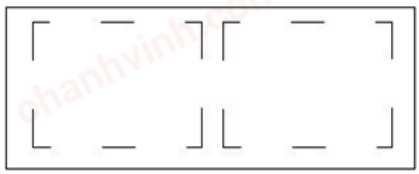

EXPORT CARTON:420*256*238

TUBE=10PCS
INNER CARTON=100 TUBE=100*10=1000PCS
EXPORT CARTON=4 INNER CARTON=4*1000=4000PCS

B78CXX-2R0-R1

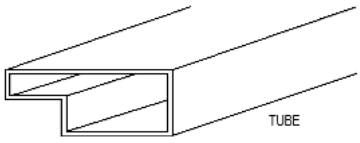


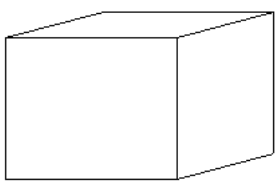

INNER CARTON:567*135*125

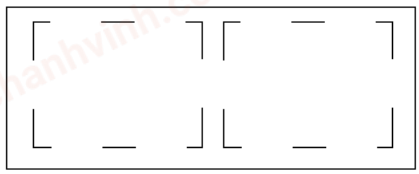

EXPORT CARTON:598*287*150

TUBE=42PCS
INNER CARTON=50 TUBE=50*42=2100PCS
EXPORT CARTON=2 INNER CARTON=2*2100=4200PCS

B78HBXX-0R5




INNER CARTON:567*135*125


EXPORT CARTON:598*287*150

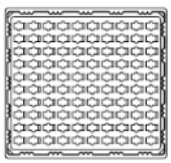
TUBE=42PCS
INNER CARTON=50 TUBE=50*42=2100PCS
EXPORT CARTON=2 INNER CARTON=2*2100=4200PCS

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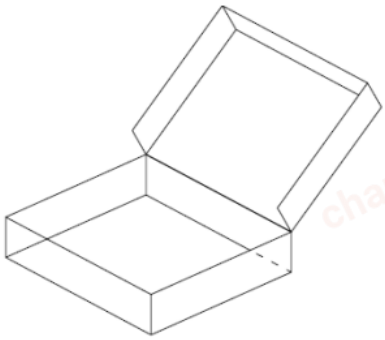
DC-DC Converters (Non-isolated) 1.6W to 24W DIP

B78C/E/HB/OBxx series

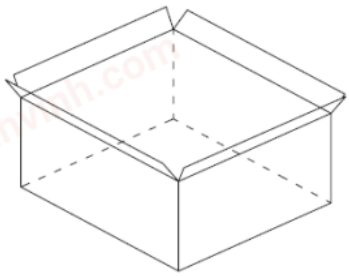
B78OXX-1R5-R2



Tray



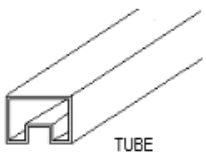
INNER BOX: 285.75*266.7*69.85



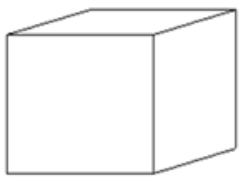
OUTER CARTON: 310*290*155

1. 1 Tray = 100 pcs
2. 1 INNER BOX = 10 Tray = 1000 pcs
3. 1 OUTER CARTON = 2 INNER BOX = 2 x 1000 = 2000 pcs

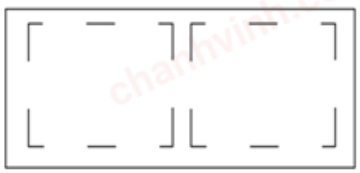
B78OXX-3R0



TUBE



INNER CARTON:567*135*125



EXPORT CARTON:598*287*150

TUBE=54PCS

INNER CARTON=50 TUBE=50*54=2700PCS

EXPORT CARTON=2 INNER CARTON=2*2700=5400PCS

For More Information:

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