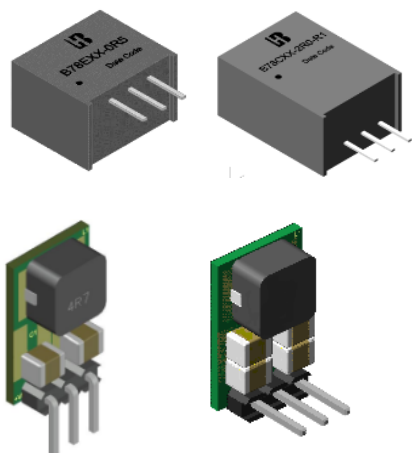


DC-DC Converters (Non-isolated) 1.6W to 24W DIP

B78C/E/HB/OBxx series



- Ⓢ 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

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)

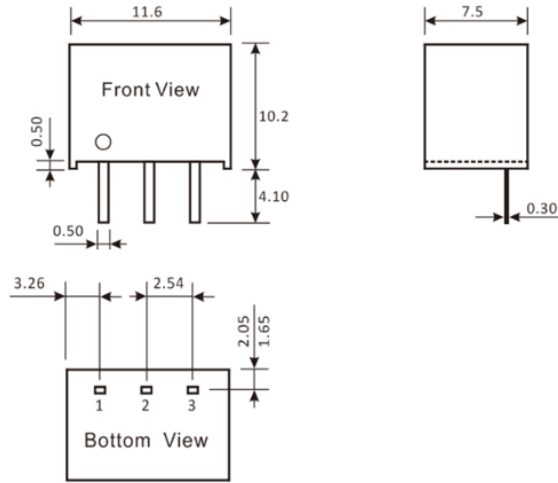
Model Number	Input Voltage Range	Output Voltage(V)	Output Current (mA)		Eff . (%)		Capacitive Load, max. (uF)
			Min. Load ⁽¹⁾	Full. Load	Vin_min	Vin_max.	
B78O05-3R0	7-36V Nominal:12V	5	0	3000	94	92	2200

Process and Materials

- Storage Temperature: -55°C to +125°C
- Compliance to J-STD:
 - J-STD-002: Solderability of Dipping at 255-260°C
 - J-STD-020: Moisture Sensitive Level 1
- All parts are packaged in tubes - see page 5 and 6 for details
- For full electrical characteristics, curves and applications, please refer to the detailed specification sheets available on request.
- 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

Mechanical

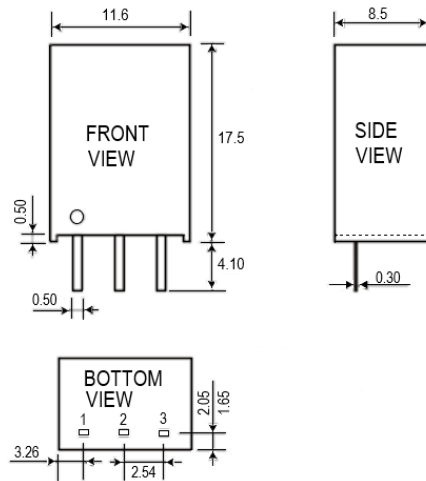
B78EXX-0R5 / B78EXX-1R0-R2



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

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

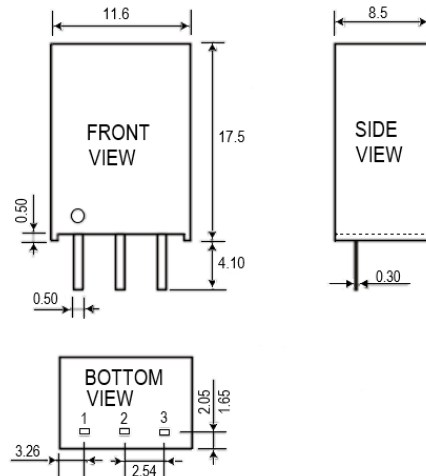
B78CXX-2R0-R1



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

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

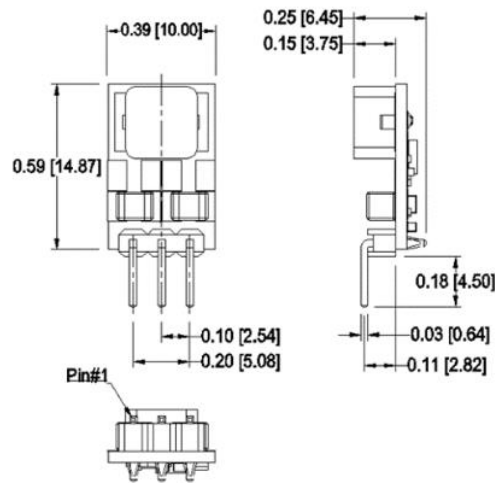
B78HBXX-0R5



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

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

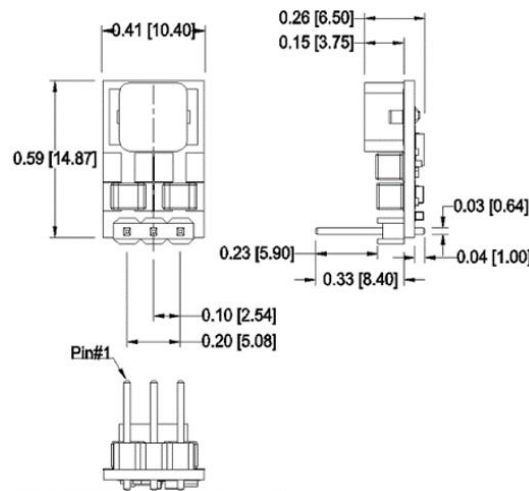
B78OXX-1R5-R2



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

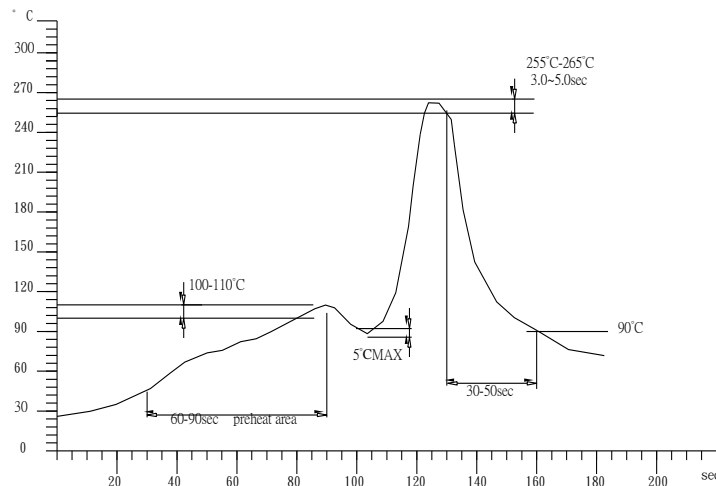
B78OXX-3R0



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

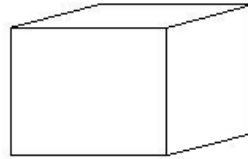
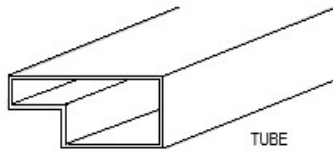
Unit: mm (inch for reference only)
Pin Section tolerances +/-0.1
General tolerances +/-0.5

Wave Soldering Temperature Curve

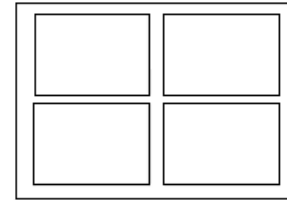


Carton Package

B78EXX-0R5、B78EXX-1R0-R2



INNER CARTON:240*200*110



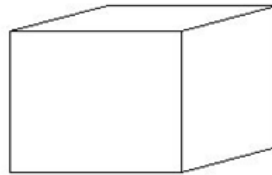
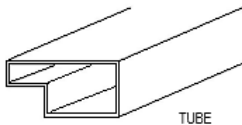
EXPORT CARTON:420*256*238

TUBE=10PCS

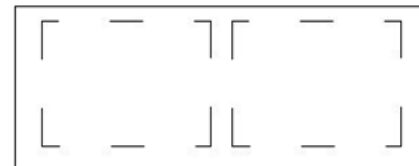
INNER CARTON=100 TUBE=100*10=1000PCS

EXPORT CARTON=4 INNER CARTON=4*1000=4000PCS

B78CXX-2R0-R1



INNER CARTON:567*135*125



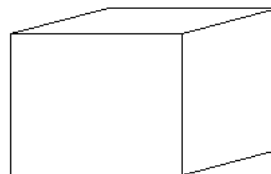
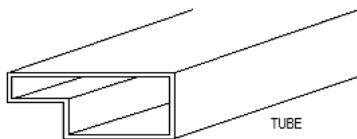
EXPORT CARTON:598*287*150

TUBE=42PCS

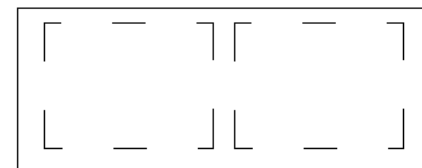
INNER CARTON=50 TUBE=50*42=2100PCS

EXPORT CARTON=2 INNER CARTON=2*2100=4200PCS

B78HBXX-0R5



INNER CARTON:567*135*125



EXPORT CARTON:598*287*150

TUBE=42PCS

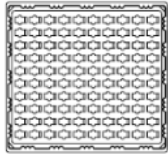
INNER CARTON=50 TUBE=50*42=2100PCS

EXPORT CARTON=2 INNER CARTON=2*2100=4200PCS

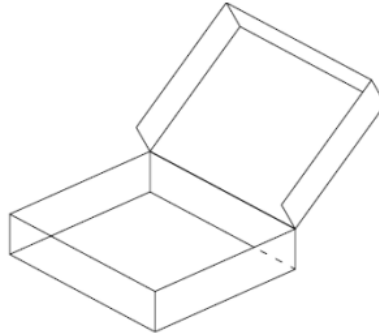
DC-DC Converters (Non-isolated) 1.6W to 24W DIP

B78C/E/HB/OBxx series

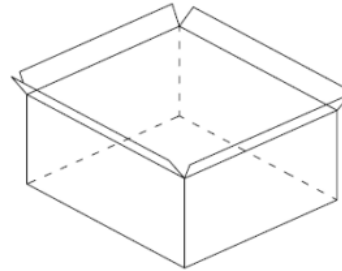
B78OXX-1R5-R2



Tray



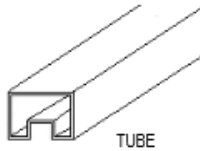
INNER BOX: 285.75*266.7*69.85



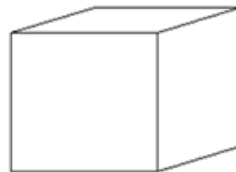
OUTER CARTON: 310*290*155

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

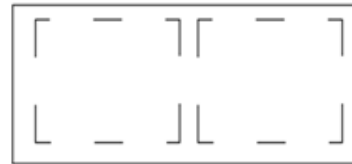
B78OXX-3R0



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:

Americas - prodinfo_network_americas@yageo.com | Europe - prodinfo_network_emea@yageo.com | Asia - prodinfo_network_asia@yageo.com

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