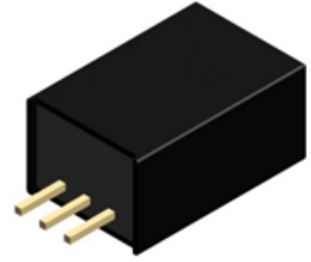


Features

- Efficiency up to 96%, Non-isolated, No need for heatsinks
- Pin-out compatible with LM78XX Linear
- Very lowest profile(L*W*H=11.5*8.5*17.5)
- Wide input range.(4.75V ~ 32V)
- Short circuit protection, Thermal shutdown
- -40°C to +85°C Operating Temperature

Application

- Regulator requires
- High efficiency required



Selection Guide

Part number	Input voltage	Output voltage	Ripple & Noise (Typ.)	Output current ⁽¹⁾ @ full load	Efficiency Max. Input/ Min. Input	Capacitive Load ⁽²⁾ Max.
C78B1.2-2.0J	4.75-32 VDC	1.2 VDC	50mVp-p	2000mA	72%/87%	3300μF
C78B1.5-2.0J	4.75-32 VDC	1.5 VDC	50mVp-p	2000mA	79%/90%	3300μF
C78B1.8-2.0J	4.75-32 VDC	1.8 VDC	50mVp-p	2000mA	80%/91%	3300μF
C78B2.5-2.0J	4.75-32 VDC	2.5 VDC	50mVp-p	2000mA	84%/92%	2300μF
C78B3.3-2.0J	4.75-32 VDC	3.3 VDC	50mVp-p	2000mA	86%/92%	1800μF
C78B5.0-2.0J	6.5-32 VDC	5 VDC	75mVp-p	2000mA	90%/94%	820μF
C78B9.0-2.0J	11-32 VDC	9 VDC	75mVp-p	2000mA	93%/95%	620μF
C78B12-2.0J	15-32 VDC	12 VDC	75mVp-p	2000mA	94%/96%	470μF
C78B15-2.0J	18-32 VDC	15 VDC	75mVp-p	2000mA	95%/96%	470μF

1. ⁽¹⁾ The output current can use 2.5A with < 1 second.
2. ⁽²⁾ The capacitive load is test by constant resistive load.
3. All specifications valid at nominal input voltage, full load and 25°C after warm-up time unless otherwise stated.

Part Number

C 7 8 B 1 . 2 - 2 . 0 J
 ↓ ↓
 Input voltage Output current

Specifications

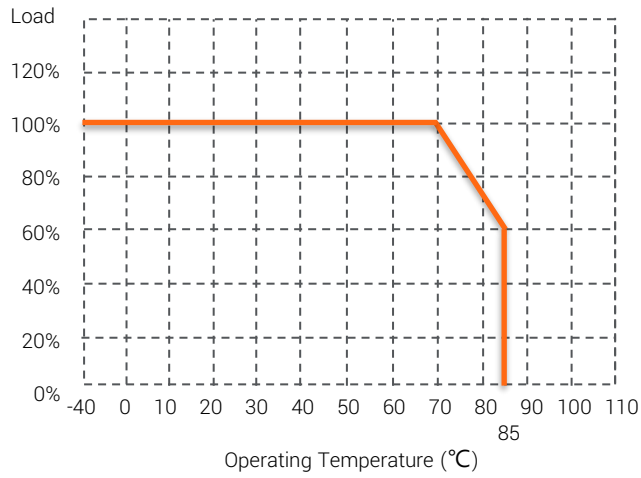
	Parameter	Conditions	Min.	Typ.	Max.	Unit
Input	Input current	@no load		2.0		mA
	Voltage accuracy			±2		%
Output	Line voltage regulation	LL to HL at 100% Load		±0.5		%
	Load voltage regulation	0% to 100% full load		±1		%
	Minimum load			0		%
	Operating frequency	100% Load at Nominal Vin=24V		460		kHz
	Internal power dissipation	Vo=1.5V		0.35-0.8		W
Environment	Operating temperature	with de-rating	-40		85	°C
	Storage temperature		-55		125	°C
	Max. case temperature			105		°C
	Relative Humidity				95	%RH
	MTBF (MIL-HDBK-217F)	+25°C	6349			KHrs
Function	Short-circuit protection			Continuous, automatic recovery		
	Short circuit input current	Nominal Vin=24V for Vout < 5V		50		mA
		Nominal Vin=24V for Vout > 5V		75		mA
	Vibration			MIL-STD-202		
	Safety Approvals			EN60950		
Physical	Dimension			17.5x11.5x8.5mm		
	Weight			4		g
	Cooling method			Free air convection		
	Case material			Plastic case (UL94V-0)		
	Potting material			Silicon (UL94V-0)		
EMC	EMI conduction	EN55022		Class A/B ⁽¹⁾		
	EMI radiation	EN55022		Class A/B ⁽¹⁾		

- ⁽¹⁾ Please check EMI application Circuit.
- All specifications valid at nominal input voltage, full load and 25°C after warm-up time unless otherwise stated.
- The product information and specifications are subject to change without prior notice.

CTC is the professional and one among world's leading manufacturers of DC-DC/ AC-DC converters.

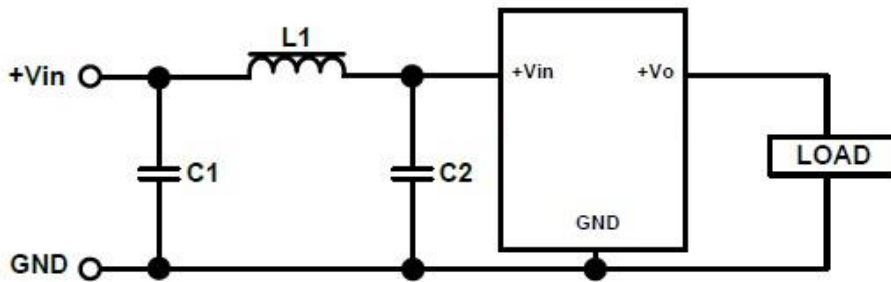
The products were used in Computers, Industrial controls, Medical equipment, Transportation, EV, ECO-power, Aero-space application and communication.

Derating Curve



The derating curve was measured in chamber with natural convection.

EMI filtering-suggestion for EN55022

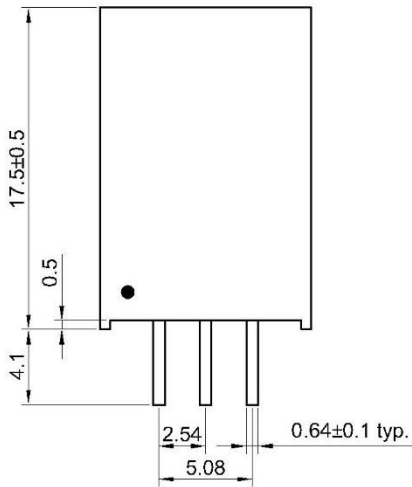


Class	C1	L1	C2
Class A	1206 4.7μF 50V MLCC	3.3μH	x
Class B	1210 10μF 50V MLCC	10μH	1206 4.7μF 50V MLCC

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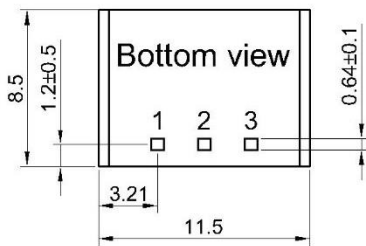
Mechanical Dimension & Pinning



Pin	Single
1	+Vin
2	GND
3	+Vout

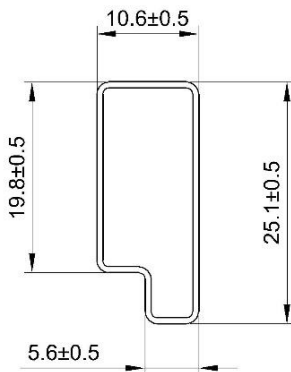
xx.x±0.5mm

xx.xx±0.25mm



Unit : mm
Tolerance : ±0.25mm

Package



UNIT:mm
1 Tube = 42pcs
Length:520±2mm

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