Specifications (measured @ Ta= 25°C, 10% minimum load, unless otherwise stated)

REGULATIONS			
Parameter	**Condition**		**Value**
Output Accuracy	100% load		±2.0% typ / ±3.0% max.
Line Regulation	low line to high line, 100% load	1.5Vout to 6.5Vout 9Vout to 15Vout	±0.2% typ. / ±0.4% max. ±0.1% typ. / ±0.2% max.
Load Regulation	10% to 100% load	1.5Vout to 6.5Vout 9Vout to 15Vout	±0.4% typ. / ±0.6% max. ±0.25% typ. / ±0.4% max.
Transient Response	100% <-> 50% load Recovery Time		±100mV typ. / ±150mV max. 1.0ms typ. / 1.5ms max.

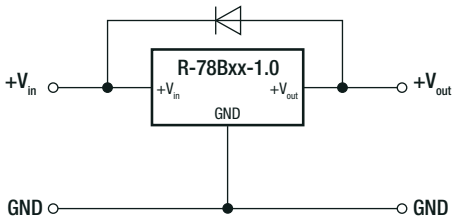
PROTECTIONS		
Parameter	**Condition**	**Value**
Short Circuit Protection (SCP)	below 100mΩ	continuous, automatic recovery
Short Circuit Input Current	nom. Vin= 24VDC	60mA max.

Optional Diode Protection Circuit

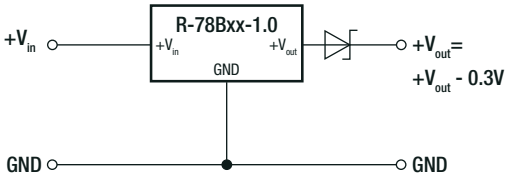
Add a blocking diode to Vout if current can flow backwards into the output, as this can damage the converter when it is powered down.

The diode can either be fitted across the device if the source is low impedance or fitted in series with the output (recommended).

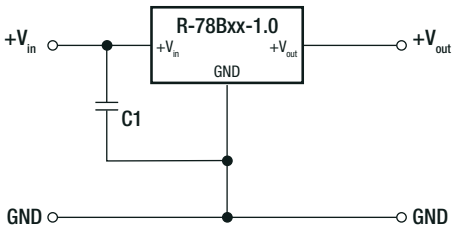
Optional Protection 1:



Optional Protection 2:



Protection Circuit



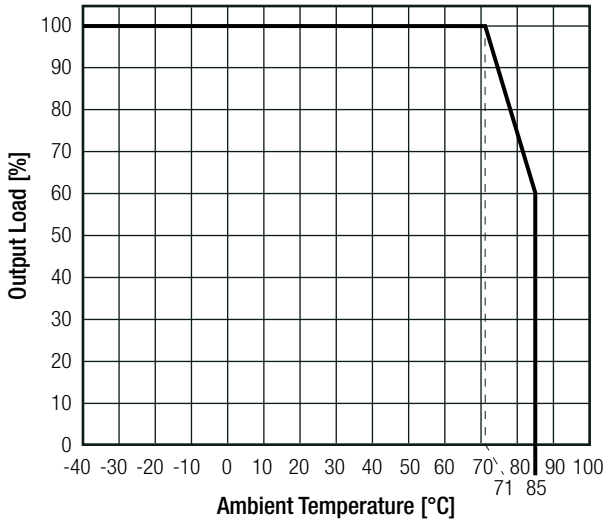
To protect the converter during power-up, use C1=22µF if Vin>30V

ENVIRONMENTAL			
Parameter	**Condition**		**Value**
Operating Temperature Range	with derating (see graph)		-40°C to +85°C
Maximum Case Temperature			+100°C
Temperature Coefficient			±0.015%/K
Thermal Impedance	0.1m/s, vertical		60K/W
Operating Altitude			2000m
Operating Humidity	non-condensing		95% RH max.
Pollution Degree			PD2
MTBF	according to MIL-HDBK-217F, G.B.	+25°C	8593 x 10^3 hours

continued on next page

Specifications (measured @ Ta= 25°C, 10% minimum load, unless otherwise stated)

Derating Graph

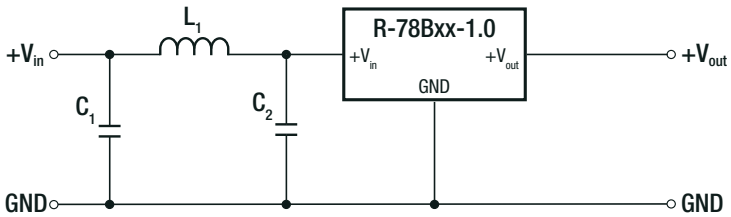


SAFETY AND CERTIFICATIONS

Certificate Type (Safety)	Report / File Number	Standard
Information Technology Equipment, General Requirements for Safety	1603123	IEC60950-1:2005, 2nd Edition + AM 2:2013 EN60950-1:2006 + AM 2:2013
EAC	RU-AT.49.09571	TP TC 004/2011
RoHS 2+		RoHS 2011/65/EU + AM2015/863

EMC Compliance	Condition	Standard / Criterion
Electromagnetic compatibility of multimedia equipment - Emission requirements	with external filter (see filter suggestion below)	EN55032, Class A and B
ESD Electrostatic discharge immunity test	Air ±8kV, Contact ±4kV	EN61000-4-2, Criteria A
Radiated, radio-frequency, electromagnetic field immunity test	3V/m	EN61000-4-3, Criteria A

EMC Filter Suggestion according to EN55032



Component List Class A

MODEL	C1	C2	L1
R-78B5.0-1.0(L)	10µF 100V MLCC	4.7µF 50V MLCC	3.9µH choke RLS-397
R-78B12-1.0(L)			
R-78B15-1.0(L)			

Component List Class B

MODEL	C1	C2	L1
R-78B5.0-1.0(L)	10µF 100V MLCC	10µF 100V MLCC	12µH choke RLS-126
R-78B12-1.0(L)			
R-78B15-1.0(L)			

Notes:

Note4: Filter suggestions are valid for indicated part numbers only. For other part numbers, please contact RECOM tech support for advice