

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	±0.3% typ. / ±0.5% max.
Load Regulation	10% to 100% load	±0.6% typ. / ±0.8% max.
Transient Response	100% <-> 50% load Recovery Time	±80mV typ. / ±120mV max. 1.0ms min. / 1.5ms typ.

PROTECTIONS

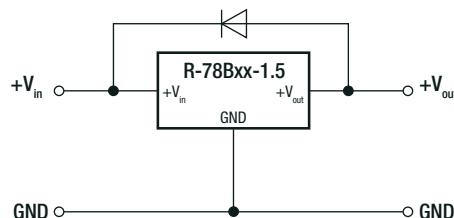
Parameter	Condition	Value
Short Circuit Protection (SCP)	below 100mΩ	continuous, automatic recovery
Short Circuit Input Current	nom. Vin= 12VDC	100mA max.

Optional Diode Protection Circuit

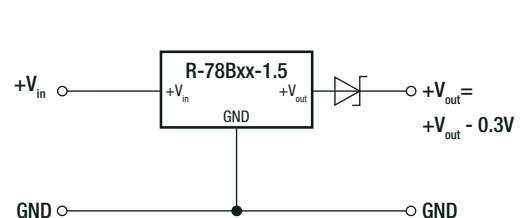
Add a blocking diode to Vout if current can flow backwards into the output, as this can damage the converter when it is powered down.

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:



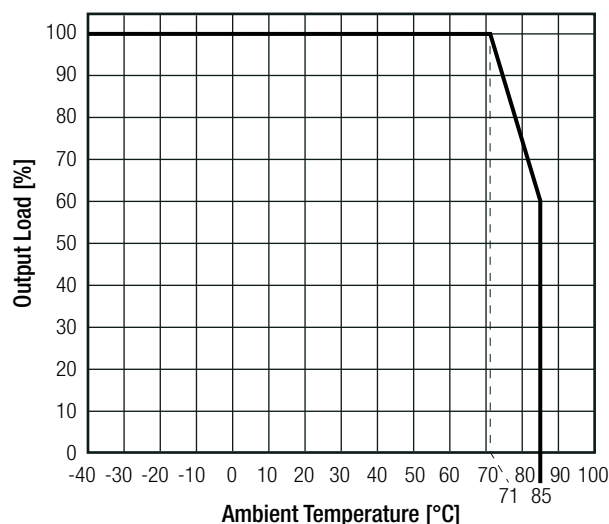
Optional Protection 2:



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	0.1 m/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 5019 x 10 ³ hours

Derating Graph



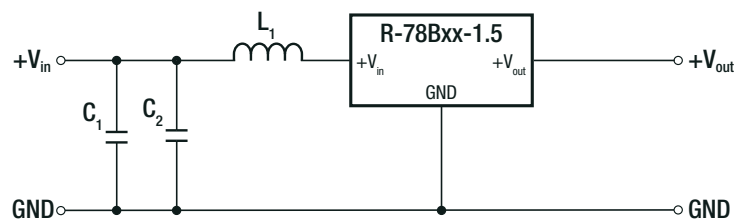
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SAFETY AND CERTIFICATIONS

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 $\pm 8\text{kV}$, Contact $\pm 4\text{kV}$	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	L1
R-78B3.3-1.5(L)	10 μF 100V MLCC	3.9 μH choke RLS-397

Component List Class B

MODEL	C1	C2	L1
R-78B3.3-1.5(L)	10 μF 100V MLCC	4.7 μF 50V MLCC	5.6 μH choke RLS-567

Notes:

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

DIMENSION AND PHYSICAL CHARACTERISTICS

Parameter	Type	Value
Material	case potting	non-conductive black plastic, (UL94 V-0) silicone, (UL94 V-0)
Package Dimension (LxWxH)		11.5 x 8.5 x 17.5mm
Package Weight		4g typ.

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