

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

BASIC CHARACTERISTICS

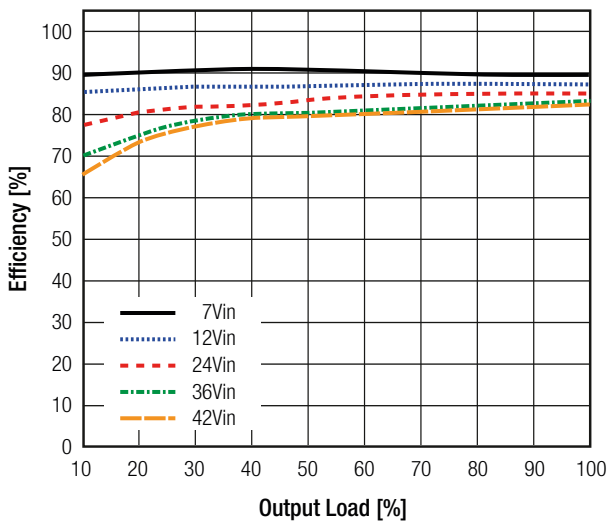
Parameter	Condition	Min.	Typ.	Max.
Internal Input Filter				C filter
Input Voltage Range	nom. Vin= 3.3VDC	7VDC		42VDC
	nom. Vin= 5.0VDC	8VDC		42VDC
	nom. Vin= 12VDC	15VDC		42VDC
Overload Capability ⁽³⁾	peak duty cycle 10%			150%, 10s
Quiescent Current			1mA	
Minimum Load		10%		
Internal Operating Frequency			350kHz	
Output Ripple and Noise	20MHz BW		50mVp-p	100mVp-p

Notes:

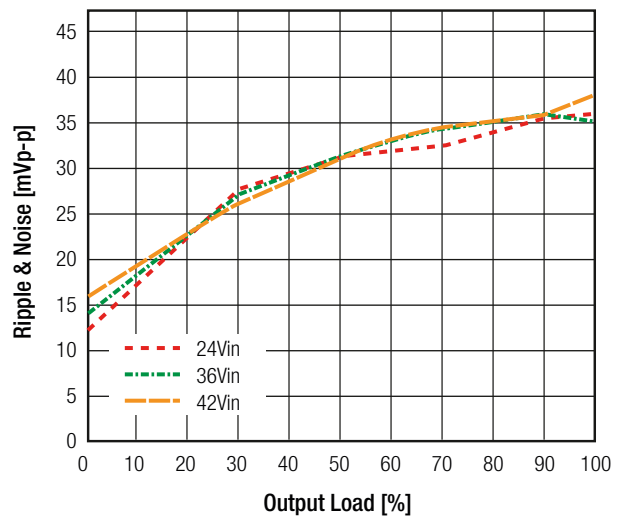
Note3: For more information, please refer to „Overload Capability Graph“ on page I-4

R-78T3.3-1.0

Efficiency vs. Load

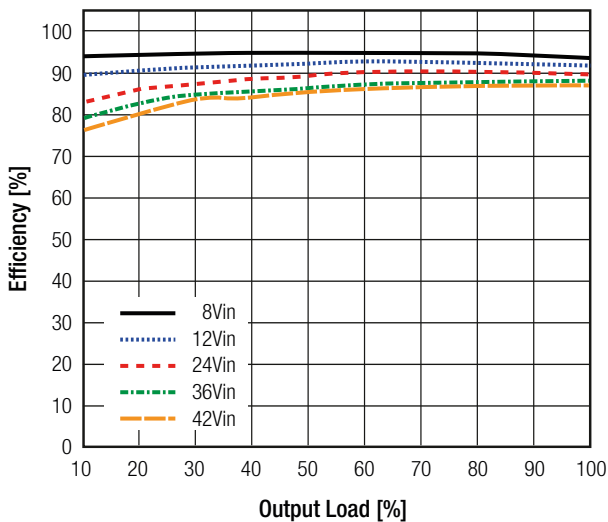


Ripple vs. Load

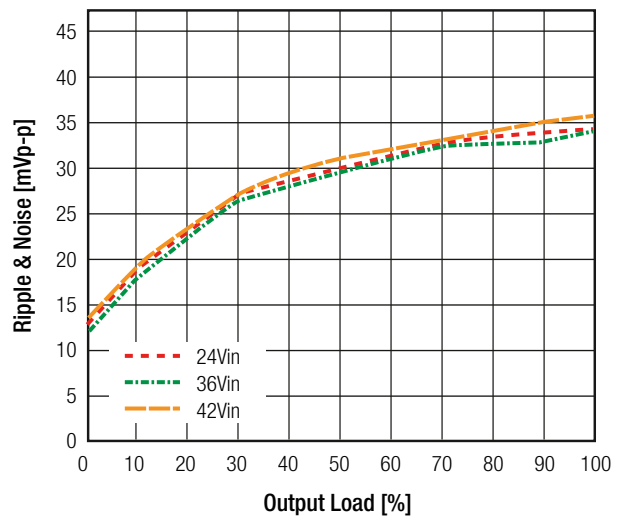


R-78T5.0-1.0

Efficiency vs. Load



Ripple vs. Load

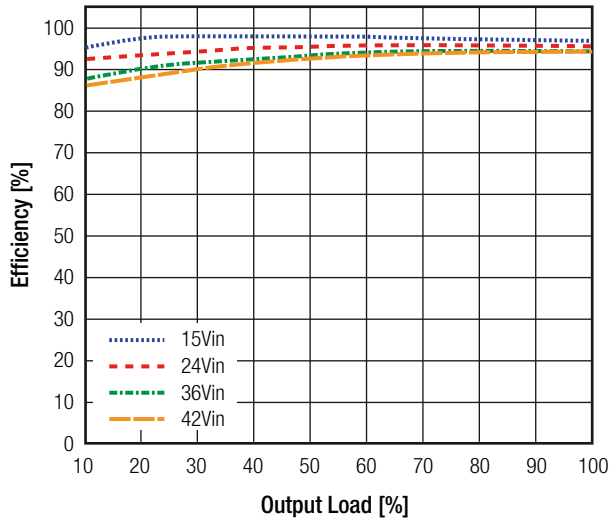


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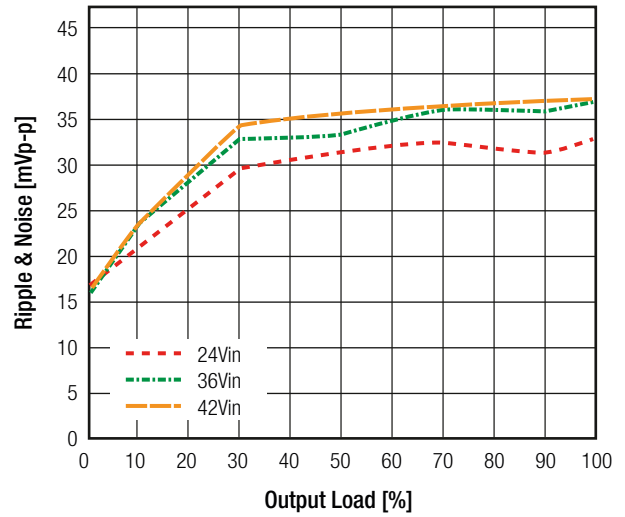
Specifications (measured @ Ta= 25°C, 10% minimum load, unless otherwise stated)

R-78T12-1.0

Efficiency vs. Load



Ripple vs. Load



REGULATIONS

Parameter	Condition		Value
Output Accuracy	full load		±2.0% typ. / ±3.0% max.
Line Regulation	low line to high line, full load		±0.2% typ.
Load Regulation	10% to 100% load		±0.4% typ.
Transient Response	50mA/uS	100% - 50% load	±250mV max.

PROTECTIONS

Parameter	Condition	Value
Short Circuit Protection (SCP)		current limited to 3.5A typ.

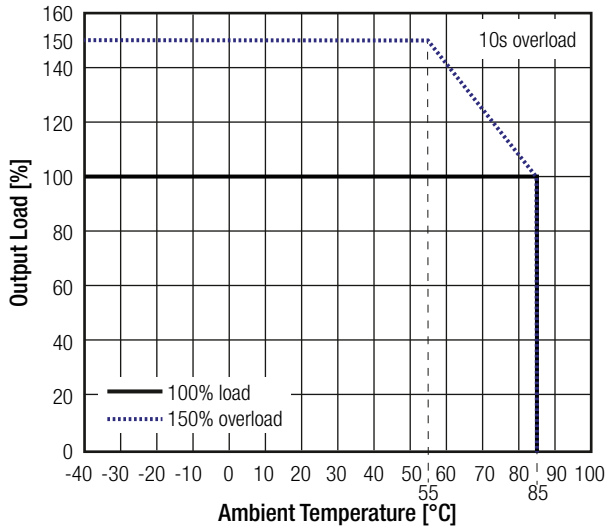
ENVIRONMENTAL

Parameter	Condition		Value
Operating Temperature Range	with derating @ free air convection (see graph)		-40°C to +85°C
Operating Humidity	non-condensing		5% - 95% RH max.
MTBF	according to MIL-HDBK-217F, G.B.	+25°C	6318 x 10 ³ hours

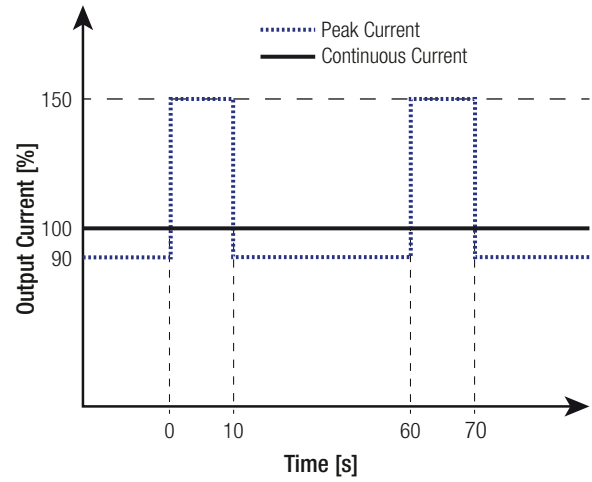
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Derating Graph
(@ Free air convection)



Overload Capability Graph



SAFETY AND CERTIFICATIONS

Certificate Type (Safety)	Report / File Number	Standard
EAC	RU-AT.49.09571	TP TC 004/2011
RoHs 2+		RoHS-2011/65/EU + AM-2015/863

DIMENSION AND PHYSICAL CHARACTERISTICS

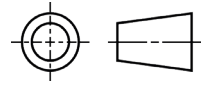
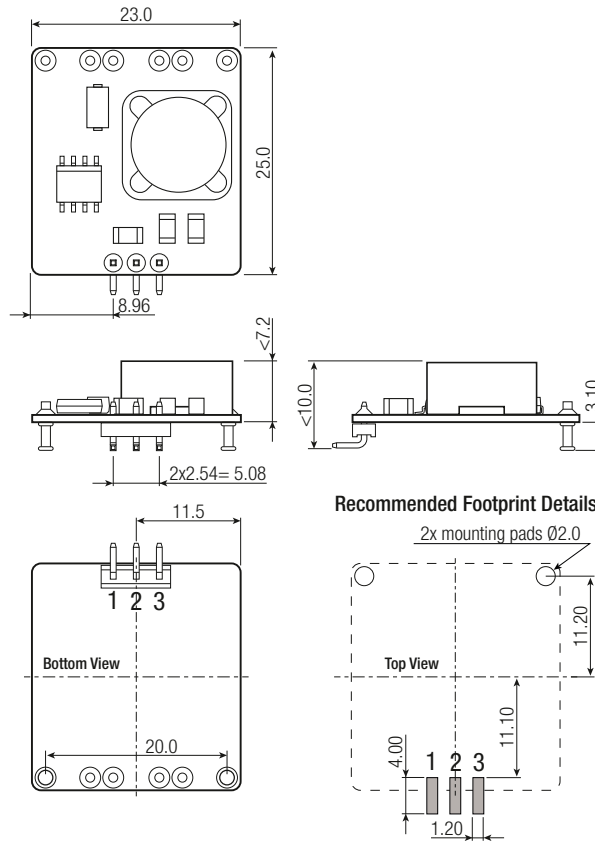
Parameter	Type	Value
Material	PCB	FR4, (UL94 V-0)
Package Dimension (LxWxH)	"/AC" or "/AL" "/FC"	23.0 x 27.2 x 10.0mm 23.0 x 29.4 x 8.0mm
Package Weight		4.5g typ.

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Dimension Drawing (mm)

R-78Txx-1.0/AC

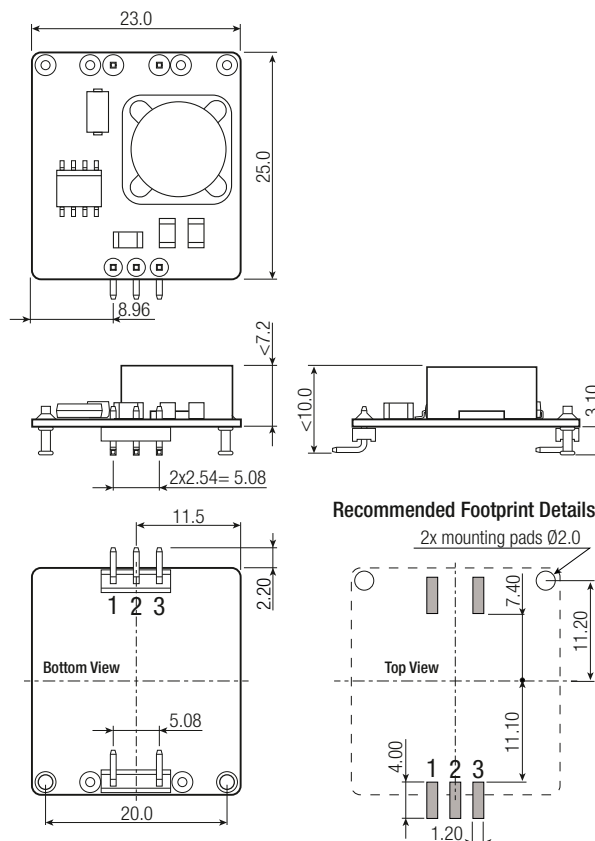


Pinning information

Pin #	Single
1	+Vin
2	GND
3	+Vout

Tolerance:
xx.x = ± 0.5 mm
xx.xx = ± 0.25 mm

R-78Txx-1.0/AL



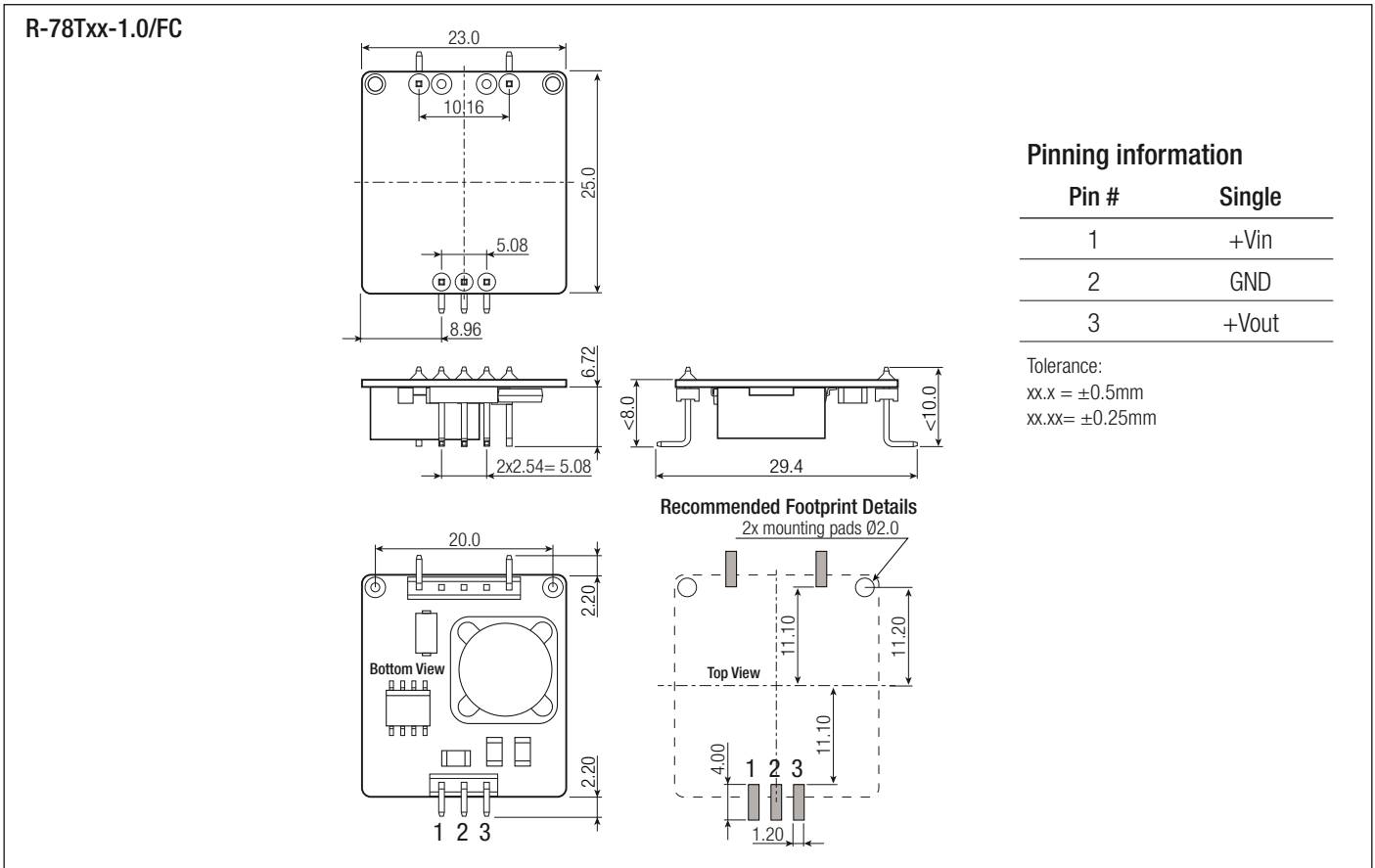
Pinning information

Pin #	Single
1	+Vin
2	GND
3	+Vout

Tolerance:
xx.x = ± 0.5 mm
xx.xx = ± 0.25 mm

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PACKAGING INFORMATION

Parameter	Type	Value
Packaging Dimension (LxWxH)	tray	260.0 x 205.0 x 25.0mm
	tape and reel (carton)	385.0 x 375.0 x 70.0mm
Packaging Quantity	tray	25pcs
	tape and reel	150pcs
Tape Width		44mm
Storage Temperature Range		-55°C to +125°C
Storage Humidity		95% RH max.

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