



FEATURES

- RoHS compliant
- Ultra wide input voltage ranges of 16-160VDC and 66-400VDC
- Designed to meet UL/EN60950
- Designed to meet EN50155
- Externally settable hold up time with additional low value capacitor
- Excellent transient response
- DC OK/Power Fail signal
- Short circuit protection
- Over Temperature protection
- Over voltage protection

DESCRIPTION

The RUW series is particularly suitable for use in applications in railway, industry or telecommunication where variable input voltages or high transient voltages are present. With ultra wide input voltage ranges of 16-160VDC and 66-400VDC, the RUW series is capable of withstanding surges from 24,36,48,72, 90 and 110V systems, largely eliminating the requirement for input protection circuitry. With excellent transient response to load and line changes, the series is designed to meet UL/EN60950 and EN50155.

Optional features include a Power Fail/DC OK signal and circuitry to facilitate long hold-up times with an external capacitor across $\pm V_{int}$ pins.

SELECTION GUIDE

Order Code ¹	Input Voltage	Output Voltage	Output Current	Output Power Max.	Efficiency Min.
	Nom.	V			
RUW15SH05C	SH	5	3	15	70
RUW15SH05HC	SH	5	3	15	70
RUW15SH12C	SH	12	1.25	15	70
RUW15SH12HC	SH	12	1.25	15	70
RUW15SH24C	SH	24	0.625	15	70
RUW15SH24HC	SH	24	0.625	15	70
RUW15SL05C	SL	5	3	15	70
RUW15SL05HC	SL	5	3	15	70
RUW15SL12C	SL	12	1.25	15	70
RUW15SL12HC	SL	12	1.25	15	70
RUW15SL24C	SL	24	0.625	15	70
RUW15SL24HC	SL	24	0.625	15	70

INPUT CHARACTERISTICS

Parameter	Conditions	Min.	Typ.	Max.	Units
Voltage range	Continuous operation SL I/P types	16		160	V
	Continuous operation SH I/P types	66		400	
Input standby current			TBC		mA
Power consumption	Zero load		TBC		W
Reflected ripple current			TBC		mA p-p

OUTPUT CHARACTERISTICS

Parameter	Conditions	Min.	Typ.	Max.	Units
Voltage set point error			1.0		%V _{OUT}
Overall voltage envelope			3.0		%V _{OUT}
Line regulation			0.5		%
Load regulation	10-100% Load		1.0		%
Ripple & noise	BW = 20MHz		1.0		%V _{p-p}
Transient response	Peak deviation (20-100% & 100-20% swing)		3.0		%V _{OUT}
	Settling time		500		μs
Start delay	From remote on/off RUWSLXXC		TBC		ms
	From remote on/off RUWSHXXC		TBC		
	From application of V _{IN} RUWSLXXC		TBC		
	From application of V _{IN} RUWSHXXC		TBC		
Hold-up time	Set by external capacitor				ms
Overvoltage protection			110%		V _{OUT}
Power fail warning time ¹	After failure of input, before loss of output		4		ms

1. Part numbers ending HC include optional Power Fail /DC OK signal and circuitry to facilitate long hold up time.



For full details go to
www.murata-ps.com/rohs

GENERAL CHARACTERISTICS

Parameter	Conditions	Min.	Typ.	Max.	Units
Switching frequency			100		kHz
Remote on/off pin functionality	Module on		OPEN		
	Module off		<3.3		V
MTTF	MIL HDBK 217F				kHrs

ABSOLUTE MAXIMUM RATINGS

Input voltage, SL input types	170V
Input voltage, SH input types	420V
Remote On/Off	20V

ISOLATION CHARACTERISTICS

Parameter	Conditions	Min.	Typ.	Max.	Units
Isolation test voltage	Flash tested for 1 second	4000			VAC
Resistance	VISO = 500VDC		2		GΩ
Capacitance			TBC		pF

ENVIRONMENTAL CHARACTERISTICS

Parameter	Conditions	Min.	Typ.	Max.	Units
Ambient temperature	Full load	-40		85	°C
Storage	Absolute Max. internal temperature	-50		125	°C
Thermal protection	Operates at case temperature		110		°C

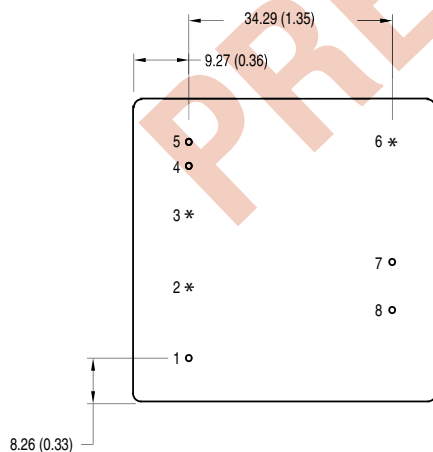
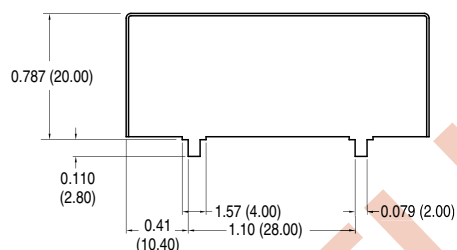
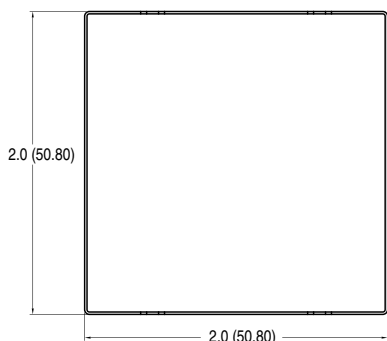
RoHS COMPLIANCE INFORMATION



This series is compatible with RoHS soldering systems with a peak wave solder temperature of 260°C for 10 seconds. The pin termination finish on this product series is a Gold flash (0.05-0.10 micron) over Nickel Preplate. The series is backward compatible with Sn/Pb soldering systems. For further information, please visit www.murata-ps.com/rohs

PACKAGE SPECIFICATONS

Mechanical Dimensions



* Optional pins

PIN CONNECTIONS

Pin	Function
1	REMOTE ON/OFF†
2	-V _{INT} *
3	+V _{INT} *
4	-V _{IN}
5	+V _{IN}
6	PF/DC OK*
7	+V _{OUT}
8	-V _{OUT}

Weight: TBC

All pins on a 0.15 (3.81) pitch and within ±0.01 (0.25) of true position.

Unless otherwise stated all dimensions are in inches (mm) ±0.01 (0.25).

† Remove ON/OFF is referenced to input and is optionally active high or low.

* Optional pins