REC6-S_DRW /R* Series

Specifications (measured at T_A = 25°C, nominal input voltage, full load and after warm-up)

Input Voltage Range				2:1
Output Voltage Accuracy				±2% max.
Line Regulation	(HL-LL)			±0.3% max.
Load Regulation	(for output load current change from 20% to 100%)			±0.6% max.
Input Surge	(1 minute)		5V types	16V max.
			12V types	25V max.
			24V types	50V max.
			48V types	100V max.
Undervoltage Lockout	(/X1 Versions)		5V types	3.5V typ. (±20%)
			12V types	7V typ. (±20%)
			24V types	15V typ. (±10%)
			48V types	32V typ. (±10%)
Output Ripple and Noise	(0,1µF capacitor on output, 20MHz BW limited)			200mVp-p max.
Transient Response	(25% step change)			1ms typ.
Switching Frequency	(Full load and nominal input voltage)			100kHz min. / 350kHz max.
Input Filter				Pi Network
Capacitors	All types			MLCC capacitors only
Minimum Load	(Operation under no-load will not damage the converter, but it may not meet all specifications)			20% Full Load
No Load Power Consumption				400mW max.
Isolation Voltage	R8-Suffix	(tested for 1 second)		8000VDC
		(rated for 1 minute**)		4000VAC / 60Hz
Isolation Voltage	R10-Suffix	(tested for 1 second)		10000VDC
		(rated for 1 minute**)		5000VAC / 60Hz
Isolation Capacitance				20pF typ.
Isolation Resistance				10 GΩ min.
Short Circuit Protection		(Max operating temp. = 50°C during short circuit conditions)		Continuous, Auto Restart
Operating Temperature Range		(free air convection)		-40°C to +75°C (see Graph)
Case Temperature				105°C max.
Storage Temperature Range				-55°C to +125°C
Relative Humidity				95% RH
Case Material				Non-Conductive Plastic
Potting Material				Silicone
Thermal Impedance		Natural convection		20°C/W
Package Weight				14g
Packing Quantity				15 pcs per Tube
MTBF (+25°C)	*Detailed Information see Application Notes chapter "MTBF"*		using MIL-HDBK 217F	953 x10^3 hours
(+75°C)			using MIL-HDBK 217F	234 x10^3 hours
EMC		Conducted Emissions	EN55022	Class A
(with 470µF//0.1µF capacitors across input)		Radiated Emissions	EN55022	Class A
Reinforced Isolation		Transformer Creepage	/R8 and /R10 Types	4.6 mm min.
		Transformer Clearance	/R8 and /R10 Types	2.4 mm min.
		PCB Creepage & Clearance	/R8 and /R10 Types	6.0 mm min.
		Optocoupler Creepage	/R8 and /R10 Types	6.0 mm min.
External Creepage and Clearance		Plastic Case	Input <> Output pins	14.2 mm min.
Certifications	EN Medical Safety		Report: MDD1207051 + RM1207051 Medical Report + ISO14971 Risk Assessment	EN 60601-1 3rd Edition
	IEC Medical Safety		CB-Report: CA-10168-A1-UL	IEC60601-1 3rd Edition
	CSA	Medical Safety	Report: 2202478	C22.2 601-1 2nd Ed.
	UL	Medical Safety	E314885-A4	UL 60601-1 3rd Edition
		General Safety	Report: 2219431	C22.2 No. 60950-1-03
	UL 60950-1 1st Ed.		Recognised as Reinforced Isolation	Supplement to Report: 2219431

**Any data referred to in this datasheet are of indicative nature and based on our practical experience only. For further details, please refer to our Application Notes.

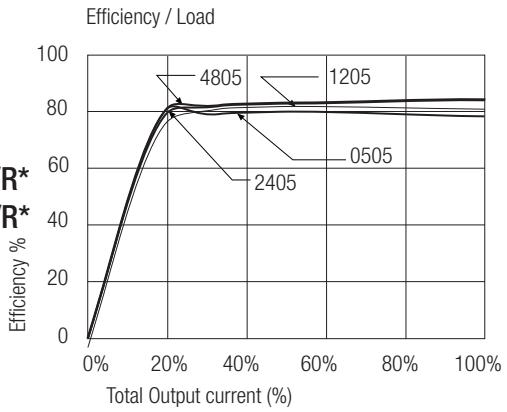
REC6-S_DRW /R* Series

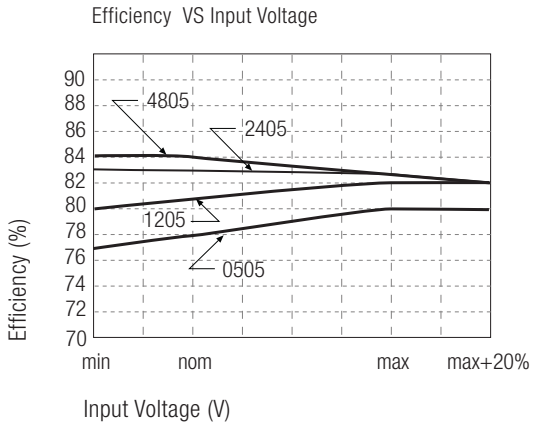
Typical Characteristics

Efficiency vs Load

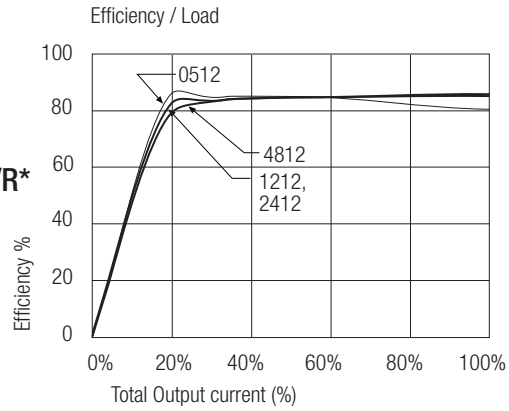
Efficiency vs Vin

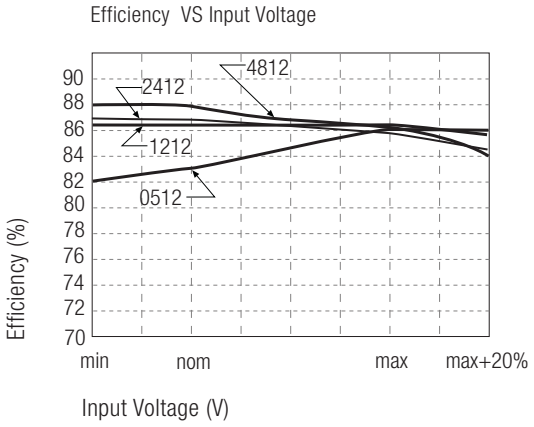
REC6-xx05SRW/R*
REC6-xx05DRW/R*



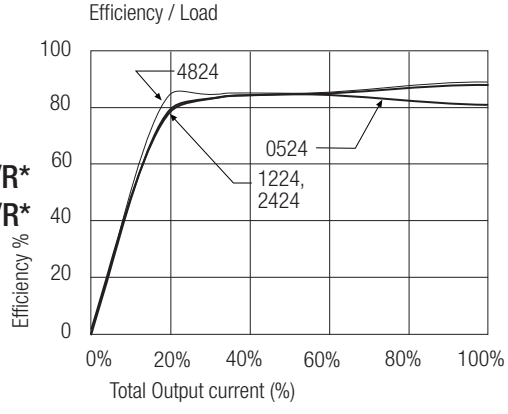


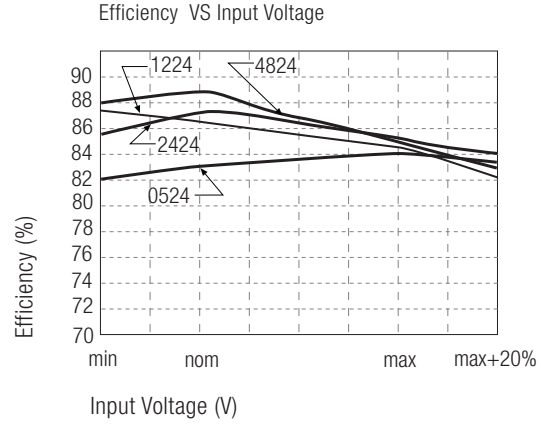
REC6-xx12SRW/R*





REC6-xx24SRW/R*
REC6-xx12DRW/R*

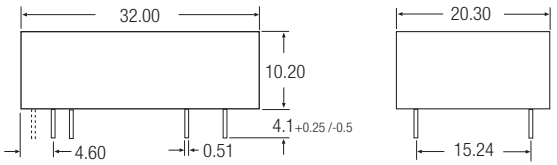




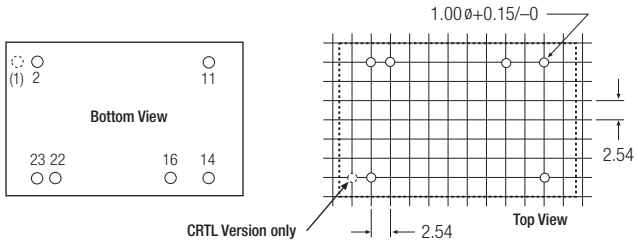
REC6/R

Package Style and Pinning (mm) DIP 24 (continued)

"A" Pinning
/R8 & /R10



Recommended Footprint Details



Pin Connections

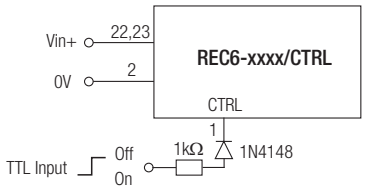
Pin #	Single	Dual
1 (option)	CTRL	CTRL
2	–Vin	–Vin
11	NC	–Vout
14	+Vout	+Vout
16	–Vout	Com
22	+Vin	+Vin
23	+Vin	+Vin

NC = No Connection

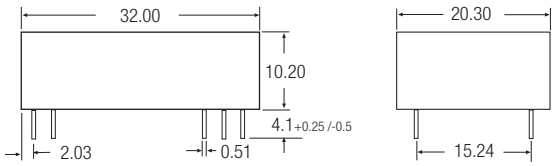
XX.X ± 0.5 mm
XX.XX ± 0.25 mm

CTRL Option

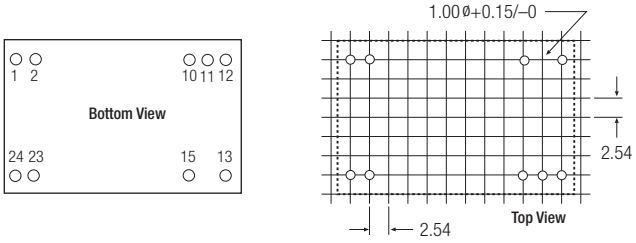
ON = Open or 0V< V_{ctrl} <1.2V
OFF = 2.2V< V_{ctrl} <12V



"C" Pinning
/R8 & /R10



Recommended Footprint Details



Pin Connections

Pin #	Single	Dual
1	+Vin	+Vin
2	+Vin	+Vin
10	NC	Com
11	NC	Com
12	–Vout	NC
13	+Vout	–Vout
15	NC	+Vout
23	–Vin	–Vin
24	–Vin	–Vin

NC = No Connection

XX.X ± 0.5 mm
XX.XX ± 0.25 mm

REC6/R