

## Features

### Unregulated Converters

- 3kVDC Isolation
- Internal SMD Construction
- UL94V-O Package Material
- Toroidal Magnetics
- Efficiency to 84%

**ECONOLINE**

DC/DC-Converter

## RSD/DH Series

### Selection Guide

Part Number	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency (%)
SMD	(VDC)	(VDC)	(mA)	(%)
RSD-xx3.3DH	3.3, 5, 9, 12, 15, 24	±3.3	±152	70
RSD-xx05DH	3.3, 5, 9, 12, 15, 24	±5	±100	74-78
RSD-xx09DH	3.3, 5, 9, 12, 15, 24	±9	±56	76-78
RSD-xx12DH	3.3, 5, 9, 12, 15, 24	±12	±42	82
RSD-xx15DH	3.3, 5, 9, 12, 15, 24	±15	±33	80-84
RSD-xx24DH	3.3, 5, 9, 12, 15, 24	±24	±21	80-84

xx = Input Voltage

### Specifications (Core Operating Area)

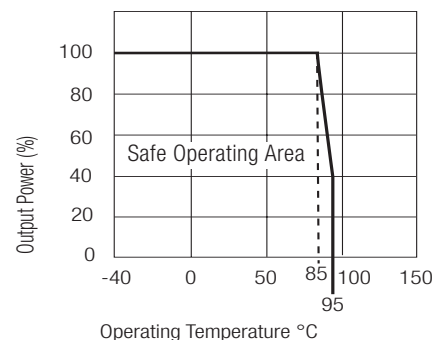
Input Voltage Range	±10%		
Output Voltage Accuracy	±5%		
Line Voltage Regulation	1.2%/1% of Vin max.		
Load Voltage Regulation (10% to 100% full load)	3.3V output types	20% max.	
	5V output type	15% max.	
	9V, 12V, 15V, 24V output types	10% max.	
Output Ripple and Noise (20MHz limited)	±100mVp-p max.		
Operating Frequency	50kHz min. / 100kHz typ. / 105kHz max.		
Efficiency at Full Load	70% min. / 80% typ.		
No Load Power Consumption	87mW min. / 130mW typ. / 190mW max.		
Isolation Voltage (tested for 1 second)	3.000VDC min.		
Rated Working Voltage (long term isolation)	see Application Notes		
Isolation Capacitance	15pF min. / 70pF max.		
Isolation Resistance	15 GΩ min.		
Short Circuit Protection	1 Second		
Operating Temperature Range (free air convection)	-40°C to +85°C (see Graph)		
Storage Temperature Range	-55°C to +125°C		
Reflow Temperature (for more details see Application Notes)	ROHS compliant	245°C (30 sec) max.	
Relative Humidity	MSL Level 1	95% RH	
Package Weight	2.2g		
MTBF (+25°C)	Detailed Information see Application Notes chapter "MTBF"	using MIL-HDBK 217F	1045 x 10 <sup>3</sup> hours
(+85°C)		using MIL-HDBK 217F	183 x 10 <sup>3</sup> hours

## 1 Watt SMD Dual Output



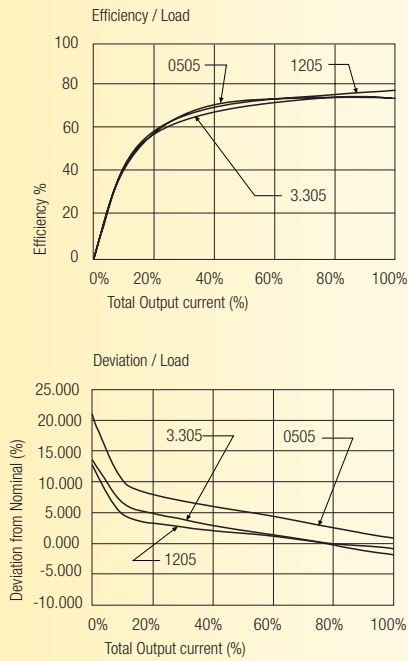
**RECOM**

## Derating-Graph (Ambient Temperature)

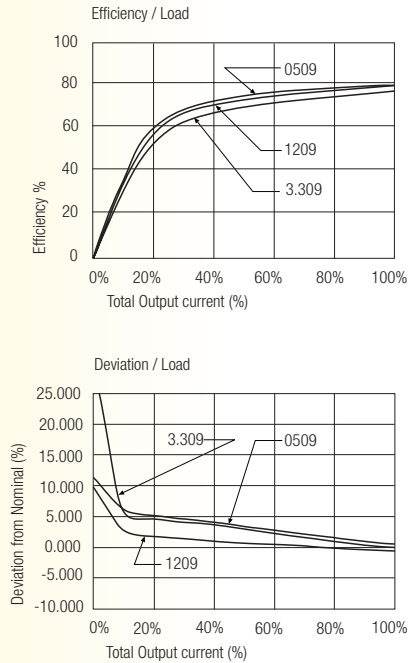


## Typical Characteristics

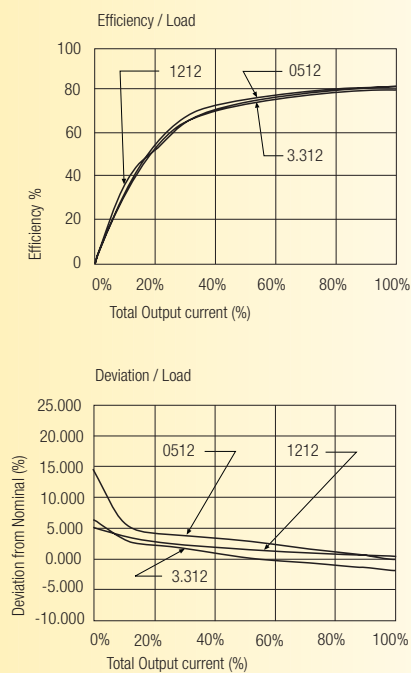
### RSD-xx05DH



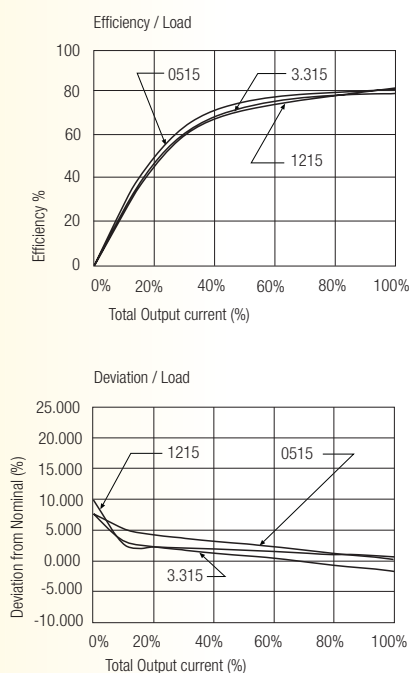
### RSD-xx09DH



### RSD-xx12DH

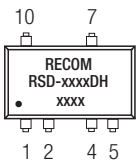
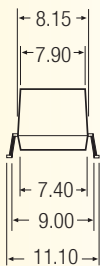
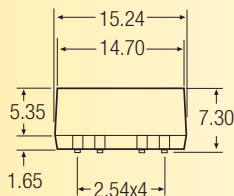


### RSD-xx15DH



Package Style and Pinning (mm)

10 PIN SMD Package



Pin Connections

Pin #	Dual
1	-Vin
2	+Vin
4	Com
5	-Vout
7	+Vout
10	NC

No Connection  
XX.X ± 0.5 mm  
XX.XX ± 0.25 mm

Recommended Footprint Details

