

# MYSGK4R030ERSR

4.5V to 15V input voltage, 30A, Buck Converter with 105degC Ta

In Production

Recommended

RoHS

## Applications

Unsuitable Applications	Please be sure to read and comply with these "Precautions for use."
Specific Applications	Consumer equipment,Industrial Equipment Please refer to Our Website and specifications, etc. for information about the performance, functions, quality, management, and safety required for the above applications, and use Products after confirming the performance and reliability of the actual Product.
Recommended Applications	Processor [ASIC / FPGA / xPU],Optical Backbone network,Optical Module, Server,Storage,Switch,Base Station, Industrial Equipment

## Features

- Input voltage ranges from 4.5 to 15V
- Settable output voltage from 0.7 to 4V
- Up to 30 Aof output current
- Quick transient response to load change
- Small package, 14 x 11 x 8.3mm
- Over current protection
- Thermal protection
- Enable control
- Power Good signal
- High Reliability / Heat Shock Testing, 700cycle (-40 to +125degC)

## Appearance & Shape

The image shows two views of the MYSGK4R030ERSR component: a top view showing its square package with a central pad and a bottom view showing the solder pads. To the right is a detailed pinout diagram for the MYSGK4R030ERSR. The diagram shows a buck converter topology with an input voltage (Vin) connected to the SW pin, a diode (D1) connected to the SW pin and the GND pin, and an inductor (L1) connected to the SW pin and the OUT pin. The OUT pin is connected to the load (R). The GND pin is connected to the thermal pad (THERMAL PAD) and the GND pin. The diagram also shows the internal components of the converter, including the MOSFET (M1), the diode (D1), and the inductor (L1).

(Typical topology is shown. Murata recommends an external input fuse.)

**Attention**  
1.This datasheet is downloaded from the website of Murata Manufacturing Co., Ltd. Therefore, it's specifications are subject to change or our products in it may be discontinued without advance notice. Please check with our sales representatives or product engineers before ordering.  
2.This datasheet has only typical specifications because there is no space for detailed specifications.  
Therefore, please review our product specifications or consult the approval sheet for product specifications before ordering.

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## Specifications

Iout(A)Max	30A
Vin(V)	4.5V to 15V
Vin(V)typ	12V
Vout(V)	0.7V to 4V
Vout(V)typ	1V
LineRegulation (%)	-1% to 1%
LoadRegulation (%)	-1% to 1%
Outputs (#)	1
Efficiency (%)	94.4%
Switching frequency (kHz)	425kHz
Size(mm)W	14.0mm
Size(mm)L	11.0mm
Size(mm)T	8.3mm
Operatingtemperature(degC)	-40°C to 105°C
Circuit topology	Buck(Step-down)
Package	SMD
Type	Modules (integrated components)
Productseries	MYSGK
Product Series Features	MYSGK series which is POL (Point of Load)&nbsp; is single output MonoBK.
Brand	Murata

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