DC/DC converters with an internal driver capable of 18V operation

The XC9248 series are bootstrap-type Nch-Nch drive step-down synchronous DC/DC converters with an internal driver Tr that is capable of 18V operation. The input voltage range is 4.5V to 18V and the maximum output current is 2.2A. A 0.8V reference voltage supply is incorporated, and the output voltage can be set using an external resistor ladder. The control method is synchronous PWM control. This series is ideal for digital household electrical products, office equipment, and car accessory power supplies.

The soft start time is set internally to 2.8ms (TYP.). The soft start time can be adjusted as desired to a time longer than the internal soft start time by connecting a capacitor to the SS pin.

An internal UVLO function forcibly turns off the two internal Nch FETs when the input voltage is 3.8V (TYP.) or less.

An over-current protection circuit, VOUT short-circuit protection circuit, LX short-circuit protection circuit, VOUT over-voltage protection circuit, and thermal shutdown circuit are incorporated as protective circuits. Available in a SOP-8FD package (6.0 x 4.9 x h1.55mm). This series is an environment-friendly product that complies with the EU RoHS Directive and is Pb-free.

XC9248 series features

●Achieves miniaturization of the power supply configuration and high efficiency by

synchronous rectification incorporated
in the driver
●High-accuracy output voltage (VFB=0.8V±1.5%, ±40ppm/°C temperature characteristic)
●High-accuracy switching frequency (500kHz ±50kHz)
●Low-side driver current limiting (Reduction of rush current when a short occurs)
●Protection latch product and automatic recovery product are available

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