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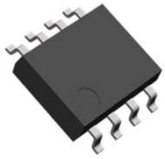
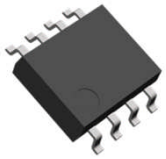
MH2501SC, MH2511SC

Multi Interleave Technology !
"Over 2 Stage"

MH2501SC : master PFC_IC SOP8
MH2511SC : slave PFC_IC SOP8

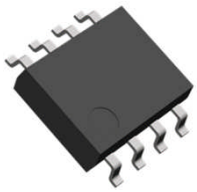
- ■ High efficiency and low EMI integrated Critical Current Mode PFC Controller
- ■ Multple interleaving operation possible by adding multipe slave controller
- ■ No input voltage sensing permits reduction in power consumption
- ■ Isrc/Isink＝0.5A(sourcing)/1.2A(sinking) Gate driver
- ■OVP , OCP , loop open/short protections , Slave stop protection ,Blocking diode short protection

MOSFET :
Cool MOS C3,CPseries
Hi-pot2 series
Diode :
FRD SF*K60Mseries

MV1000series

Deep Dimming Control !

MV1001SC: Can operated via AC direct input
MV1002SC: Uses an external starter circuit



- ■ Constant current control
- ■ Critical Conduction Mode ⇒ High efficiency and low EMI
- ■ Allows for PWM dimming input and linear dimming input
- ■ Can operated via AC direct input (MV1001SC)
- ■ high side and low side drive -- both are possible
- ■ Switching frequency clamp by OFF width control
- ■ Equipped with various protection, such as LED short protection

MOS
Hi-pot2 series

Simple Design !

MD5021T

- ■ Integrated P-Channel MOSFET reduces component count total cost
- ■ Input Voltage range: 4.5V ～14V
- ■ Adjustable output voltage range: 0.8 ～12V
- ■ Adjustable operating frequency range: 100k ～500kHz
- ■ High output current 2A

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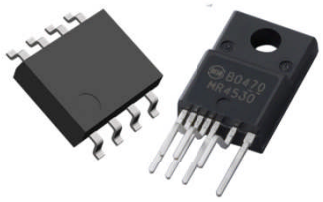
Soft Switching !
Hi Stand-by Performance !

MS1000series, MR4000series



SW : Hi-pot MOS 2 series
VX4 series
SIGBT series

Output Di : SBD SG(SC,JC,TC)
FRD SF

MS1000series：Quasi-Resonant IC
MR4000series：MOSFET（SIGBT）+ Quasi-Resonant IC

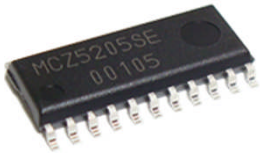
- ■ High Efficiency quasi-resonant converter
- ■ Low EMI with soft switching
- ■ External start up resistor not required（MS1000 series）
- ■ Super stand-by mode for high efficiency（MS1000 series）
- ■ Improvement of “light load“ due to automatic QR operation function（MS1000 series）
  - → 1 Bottom – skip QR operation (MS1003SH)
  - → 2 Bottom – skip QR operation (MS1004SH）
- ■ Automatic OCL level compensation for input BUS voltage (MS1000 series）
- ■ MS1000 in SOP8 package & MR4000 in FTO220 package

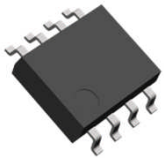
MCZ5205SE, MCZ5203SE, MCZ5301SC

Soft Switching !
Hi Efficiency !

MCZ5205SE : Direct drive LLC controller and PFC controller in a SOP22 PKG
MCZ5203SE : Direct drive LLC controller in a SOP22 PKG
MCZ5301SC : External drive LLC controller in a SOP8 PKG

- ■ Built-in 600V high voltage gate driver for high reliability, (excluding MCZ5301SC),
- ■ Protection functions against abnormal over-current protection (AOCP), brownout detection and Best-in-class capacitive mode protection
- ■ Integrated active stand-by function to reduce loss in light load range (MCZ5205SE)





SW :Cool MOS C3,CP series
Hi-pot MOS 2 series
VX4 series
Output Di :SBD SG(SC,JC,TC）
FRD SF

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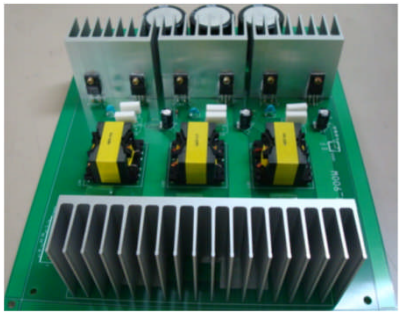
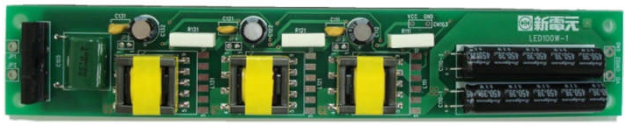
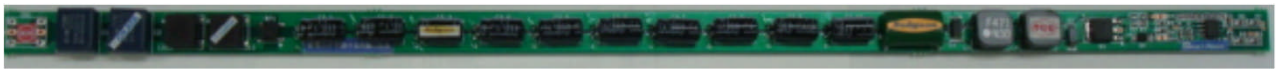
PFC course with MH series





●Sample 1：AC85V～132V,　395V 80W (MH2501SC*1,MH2511SC*2)
●Sample 2：AC180V～264V,　395V 4kW(MH2501SC*1,MH2511SC*2)
●Sample 3：AC85V～264V,　395V 900W(MH2501SC*1,MH2511SC*2)

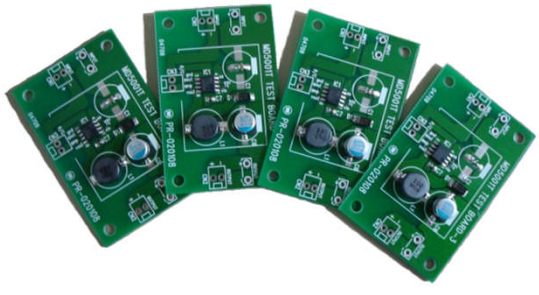
Stepping down chopper course for LED lighting with MV series



●Sample 1：AC180V～264V,　100V 0.3A (MV1001SC)

Stepping down chopper course with MD series

●Sample 1：DC12V,　9V / 0.5A（MD5021T)
●Sample 2：DC12V,　5V / 1A（MD5021T)
●Sample 3：DC12V,　3.3V / 1A（MD5021T)
●Sample 4：DC12V,　1.5V / 2A（MD5021T)



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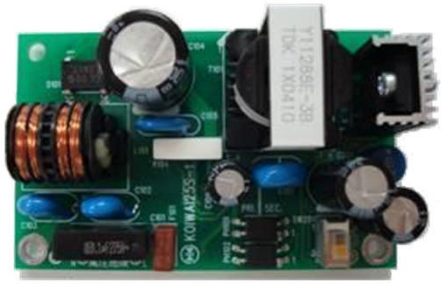
QRC course with MR

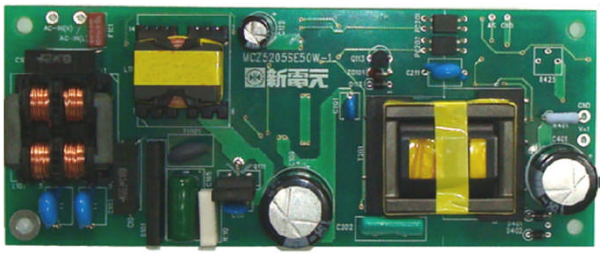
●Sample 1：AC90V～276V,　24V1.9A（MR4010)
●Sample 2：AC90V～276V,　24V1.9A（MR9010）

QRC – “Super Stand-by Series“ course with MS series



●Sample 1：AC80V～132V,　12V2A（MS1003SH)
●Sample 2：AC90V～276V,　24V3A（MS1003SH)
●Sample 3：AC90V～276V,　12V2A（MS1003SH)

LLC course with MCZ series



●Sample 1：AC90V～264V,　140V0.35A
（MCZ5205SE) Constant current control
●Sample 2：AC90V～264V,　24V3A/12V2A
（MCZ5205SE)

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