

## Overview

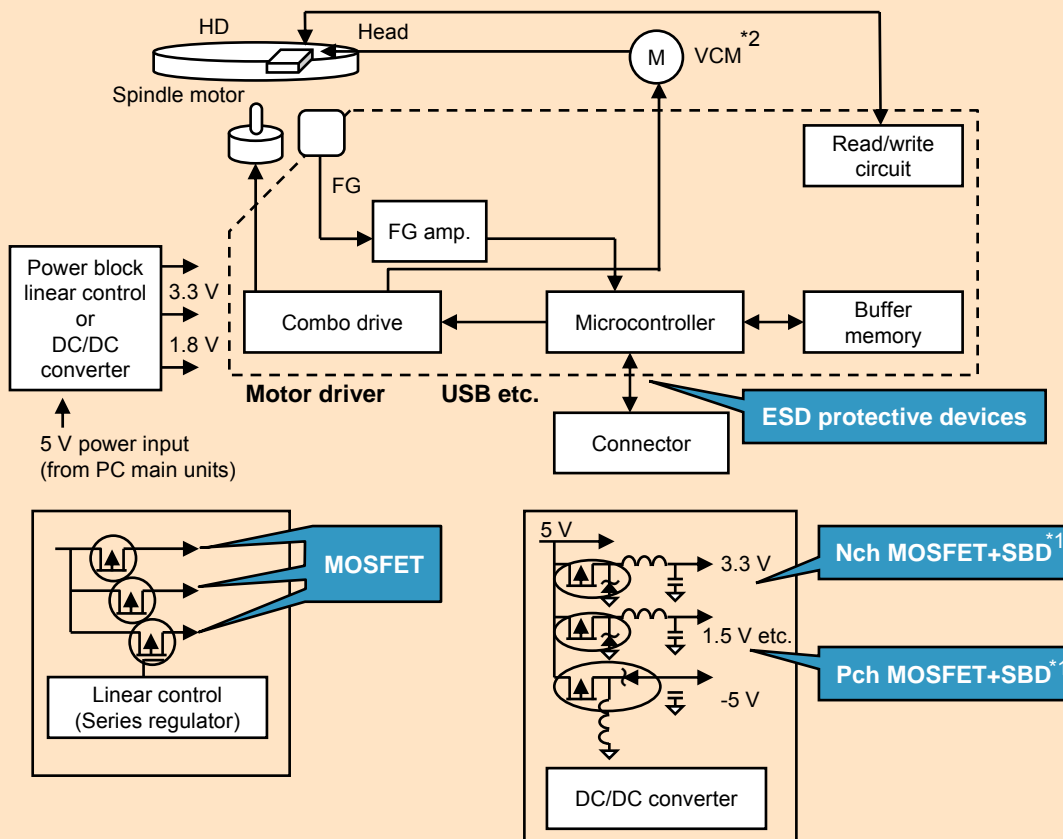


Hard disks used as memory for personal computers have been expanding in capacity by leaps and bounds, and are now being employed in a wider range of applications, including mounting on DVD recorders.

Renesas Electronics offers a line-up of MOSFET products suitable for hard disk power supplies, contributing to lower power consumption. Specifically, we supply a series of products with MOSFET + SBD in one package suitable for DC/DC converter circuits that generate various voltages, ranging from 5 V power supply voltage fed to hard disks and 1.2 to 3.3 V for internal dedicated LSIs, to negative voltage, as well as MOSFET products for series regulator circuits.

Renesas Electronics offers the NSAD and NNCD series as ESD protective devices for the external interfaces of hard disks. In particular, the NSAD series features low terminal capacitance suitable for use in high-speed interfaces, and provides ESD protection that does not affect high-speed data transfer.

## System Block Diagram



\*1 SBD: Schottky Barrier Diode  
 \*2 VCM: Voice Coil Motor

**Recommended Products**

As of July 2010

Block	Semiconductor device	Recommended products	Features, etc.
DC/DC converter	MOSFET w ith schottky barrier diode	μPA507	
		μPA508	
		μPA1980	
Series regulator	MOSFET	μPA620TT	Nch, package : 6pWSOF
		μPA621TT	Nch, package : 6pWSOF
		μPA650TT	Pch, package : 6pWSOF
		μPA651TT	Pch, package : 6pWSOF
		μPA652TT	Pch, package : 6pWSOF
		μPA2610T1C	Pch, package : 8LD3x2MLPM
Noise clipping device	Diode	NNCD5.6LG	Low capacitance, VBR: 5.6 V
		NNCD5.6LH	Low capacitance, VBR: 5.6 V
		NNCD5.6MG	Low capacitance high ESD, VBR: 5.6 V
		NNCD6.2LG	Low capacitance, VBR: 6.2 V
		NNCD6.2LH	Low capacitance, VBR: 6.2 V
		NNCD6.2MF	Low capacitance high ESD, VBR: 6.2 V
		NNCD6.2MG	Low capacitance high ESD, VBR: 6.2 V
		NNCD6.8MG	Low capacitance high ESD, VBR: 6.8 V
		NNCD6.8RG	Low capacitance, VBR: 6.8 V
		NNCD6.8RH	Low capacitance, VBR: 6.8 V
		NNCD6.8RL	Low capacitance, VBR: 6.8 V
Surge absorber devices	Diode	NSAD500F	2 diodes
		NSAD500H	4 diodes
		NSAD500S	2 diodes

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