

# **POWER MOSFETs**

PowerPAIR™



Co-packaged MOSFETs reduce space, deliver performance comparable to two discretes

### **KEY BENEFITS**

- High- and low-side MOSFETs in one compact 6-mm x 3.7-mm package
  - On-resistance down to 5.8 m $\Omega$
  - Maximum current up to > 17 A
- Lowers solution space and cost compared to two discrete MOSFETs, saving clearance and labeling space
- Simplifies layout
- Reduces parasitic inductance from PCB traces, increasing efficiency and reducing ringing

#### **APPLICATIONS**

- System power, POL, low-current dc-to-dc, and synchronous buck in notebooks
- VRMs
- Power modules
- Graphics cards
- Servers
- Gaming consoles

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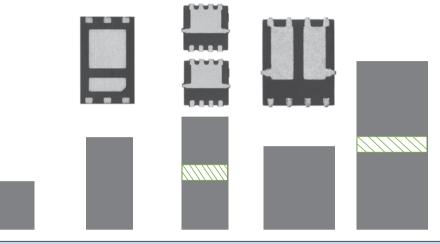


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## **PowerPAIR™**

### **PowerPAIR™ COMPARISON**



PowerPAIR™ COMPARISON											
	PowerPAK <sup>®</sup> 1212-8 dual	PowerPAIR	2 PowerPAK 1212-8 singles	PowerPAK SO-8 dual	2 PowerPAK SO-8 singles						
Approximate size (mm <sup>2</sup> )	11	22	22 + spacing	30	60 + spacing						
Approximate lowest max on-resistance (mΩ)	> 10	6	5	< 5	2						
Approximate highest max current (A) T <sub>A</sub> = 25 °C	10	17	22	21	47						
Approximate highest max current (A) T <sub>A</sub> = 70 °C	8	14	17	17	37						
Reference	Si7232DN	SiZ700DT	Si7108DN	Si7236DP	SiR440DP, SiR866DP						

CHANNEL	V <sub>DS</sub>	V <sub>GS</sub>	<sup>R</sup> DS(ON) <sup>@</sup> 10 V	R <sub>DS(ON)</sub> @ 4.5 V	Q <sub>g</sub> (typ)	I <sub>D</sub> @ T <sub>A</sub> = 25 °C	I <sub>D</sub> @ T <sub>A</sub> = 70 °C				
1	20 V	± 16 V	8.6 mΩ	10.8 mΩ	9.5 nC	13.1 A	10.5 A				
2	20 V	± 16 V	5.8 mΩ	6.6 mΩ	27 nC	17.3 A	13.9A				

#### Latest list of datasheets and related documents available at http://www.vishay.com/ppg?69090

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