



POWER MOSFETs

TrenchFET® Gen III - P-Channel



Breakthrough P-Channel Technology Dramatically Cuts $R_{DS(on)}$

KEY FEATURES AND BENEFITS

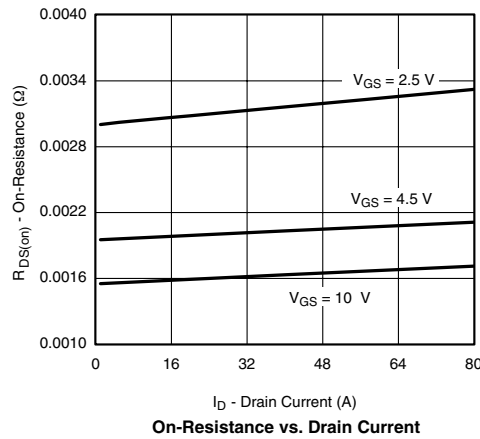
- Lowest on-resistance per area achieved for a p-channel provides on-resistance down to half of previous industry best
- Down to sub 2 mΩ in SO-8 footprint area
- Variety of package sizes, from PowerPAK® SO-8 down to 1.6 mm x 1.6 mm PowerPAK SC-75 and 1.5 mm x 1 mm chipscale MICRO FOOT®
- Low conduction losses save power in battery operated systems

APPLICATIONS

- Load switching and hot swapping in industrial systems
- Adaptor, battery, and load switches in notebooks, laptops, and netbooks
- Load switches in charger circuits for portable and handheld devices such as smart phones, PDAs, MP3 players, and DSCs



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| Part Number | V _{DS} (V) | V _{GS} (V) | R _{DS(ON)} (Ω) | | | | | Samples |
|---------------------------|---------------------|---------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|---------|
| | | | V _{GS} = 10 V | V _{GS} = 4.5 V | V _{GS} = 2.5 V | V _{GS} = 1.8 V | V _{GS} = 1.5 V | |
| Single P-Channel | | | | | | | | |
| PowerPAK SO-8 | | | | | | | | |
| Si7137DP | - 20 | 12 | 0.00195 | 0.0025 | 0.0039 | | | |
| Si7141DP | - 20 | 20 | 0.0019 | 0.003 | | | | |
| Si7145DP | - 30 | 20 | 0.0026 | 0.00375 | | | | |
| SO-8 | | | | | | | | |
| Si4497DY | - 30 | 20 | 0.0033 | 0.0046 | | | | |
| PowerPAK 1212-8 | | | | | | | | |
| Si7615DN | - 20 | 12 | 0.0039 | 0.0055 | 0.0098 | | | |
| Si7625DN | - 30 | 20 | 0.007 | 0.011 | | | | |
| 1206-8 ChipFET® | | | | | | | | |
| Si5471DC | - 20 | 12 | | 0.02 | 0.028 | 0.062 | | |
| PowerPAK SC-70 | | | | | | | | |
| SiA433EDJ | - 20 | 12 | | 0.018 | 0.026 | 0.065 | | |
| PowerPAK SC-75 | | | | | | | | |
| SiB455EDK | - 12 | 10 | | 0.027 | 0.039 | 0.069 | 0.165 | |
| SiB457EDK | - 20 | 8 | | 0.035 | 0.049 | 0.072 | 0.13 | |
| MICRO FOOT 1.5 x 1 | | | | | | | | |
| Si8499DB | - 20 | 12 | | 0.032 | 0.046 | 0.12 | | |
| Dual P-Channel | | | | | | | | |
| PowerPAK SC-70 | | | | | | | | |
| SiA975DJ | - 12 | 8 | | 0.041 | 0.06 | 0.11 | | |
| SiA921EDJ | - 20 | 12 | | 0.059 | 0.098 | | | |

For the latest list of devices visit <http://www.vishay.com/mosfets/geniii-p/>

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