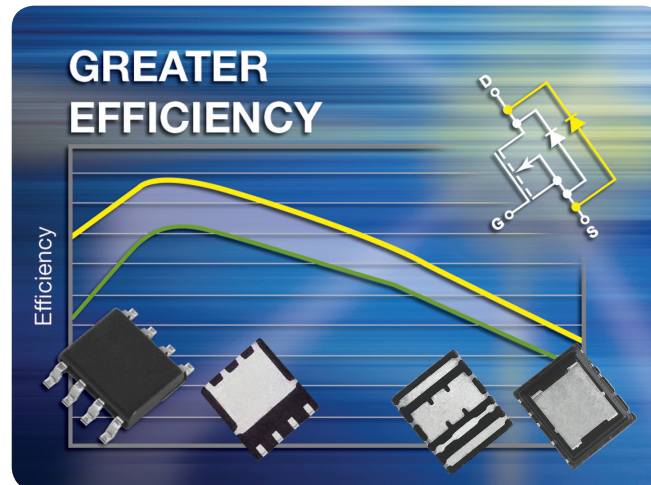


Integrated MOSFET and Schottky Diode Solution



KEY BENEFITS

- Increases efficiency for DC/DC converter applications
- Reduces space and solution cost by eliminating external Schottky diodes
- Ideal low-side switch for synchronous rectification
- Reduces power losses linked to the body diode of the MOSFET

APPLICATIONS

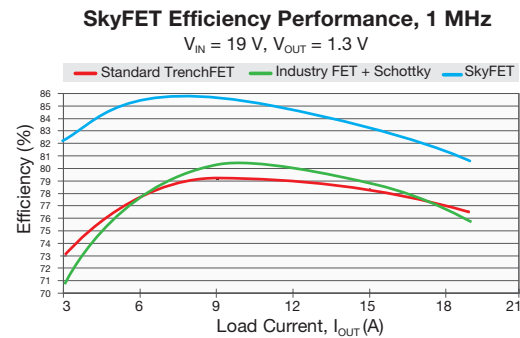
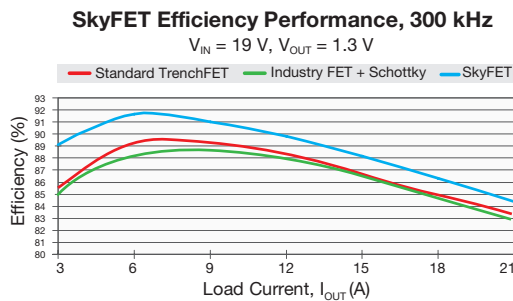
- Point of load (POL)
- Synchronous rectification
- VRM
- Synchronous buck low side for core voltages
- Graphics cards

RESOURCES

- For the latest list of devices and datasheets: <http://www.vishay.com/mosfets/skyfet/>
- More featured products: <http://www.vishay.com/landingpage/tradeshows/powermanagement/2011/mosfets.html>
- For technical questions contact pmstechsupport@vishay.com

SkyFET MOSFET and Schottky Diode

SkyFET® MOSFETs are ideal for increasing efficiency at light loads and at higher frequencies, thus reducing power losses in servers, notebooks, and VRMs. Their low V_F and Q_{rr} provide an advantage over standard trench MOSFETs that can be seen from the efficiency comparisons below at 300 kHz and 1 MHz.



Part Number	V_{DS} (V)	V_{GS} (V)	$R_{DS(on)}$ (Ω)		Q_g (nC)	Q_{rr} (nC)	Samples	
			$V_{GS} = 10\text{ V}$	$V_{GS} = 4.5\text{ V}$	$V_{GS} = 4.5\text{ V}$			
Single MOSFET and Schottky Diode								
PowerPAK® SO-8								
Si7792DP	30	20	0.0021	0.0026	41	27	Available	
SiR798DP	30	20	0.00205	0.003	41.6	30	Available	
SiR774DP	30	20	0.0026	0.0034	28.5	17.5	Available	
SiR788DP	30	20	0.0034	0.0043	24	10.5	Available	
Si7774DP	30	20	0.0038	0.0047	21.5	11	Available	
Si7748DP	30	20	0.0048	0.0066	27.8	13	Available	
Si7722DP	30	20	0.013	0.0165	8.3	7	Available	
SO-8								
Si4628DY	30	20	0.003	0.0038	27.5	21	Available	
Si4774DY	30	20	0.0095	0.012	9.5	7.5	Available	
Si4712DY	30	20	0.013	0.0165	8.3	7	Available	
Si4776DY	30	20	0.016	0.02	5.5	4.5	Available	
PowerPAK 1212-8								
SiS778DN	30	20	0.005	0.0062	13.3	8	Available	
SiS782DN	30	20	0.0095	0.012	9.5	7.5	Available	
SiS780DN	30	20	0.0135	0.0175	7.3	5	Available	
Dual MOSFETs and Schottky Diode								
PowerPAIR®								
SiZ914DT*	1	30	20	0.00600	0.00900	7.6	tbd	Q113
	2	30	20	0.00137	0.00189	43.2		

* target specification

For a list of latest devices, see <http://www.vishay.com/mosfets/skyfet/>