

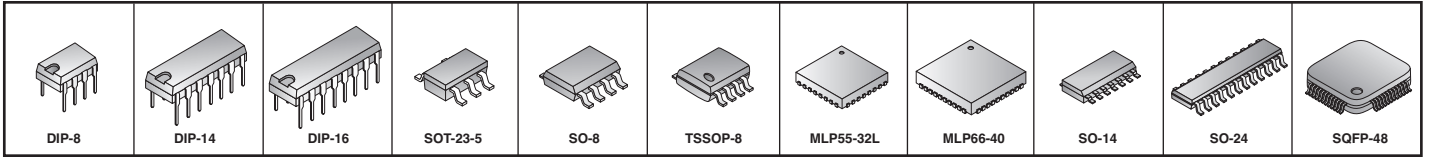
SILICONIX Power Management ICs

RoHS Compliant This product is RoHS compliant.

VISHAY

Power Management

Vishay Siliconix



INTEGRATED POWER STAGE

Features:

- Integrated Gen III MOSFETs and DrMOS compliant gate driver IC
- Enables Vcore switching at 1 MHz
- Easily achieve > 90 % efficiency in multi-phase, low output voltage solutions
- Low ringing on the VSWH pin reduces EMI
- Pin compatible with DrMOS 6 x 6 version 3.0
- Tri-state PWM input function prevents negative output voltage swing
- 5V logic levels on PWM
- MOSFET threshold voltage optimized for 5V driver bias supply
- Automatic skip mode operation (SMOD) for light load efficiency
- Under-voltage lockout
- Built-in bootstrap schottky diode
- Adaptive deadtime and shoot through protection
- Thermal shutdown warning flag

For quantities of 2000 and up, call for quote.

MOUSER STOCK NO.	Siliconix Part No.	Package	Input Voltage		Control Input Voltage		Control Input Current (Typ @ 5)(uA)	PWM Rising Threshold (Typ)(V)	PWM Failing Threshold (Typ)(V)	PWM Input Current (Typ)(uA)	Price Each					
			(Min)(V)	(Max)(V)	(Min)(V)	(Max)(V)					1	100	500	1000		
Surface Mount																
781-SIC769CD-E3	SIC769CD-T1-E3	Power Pak MLP66-40	-0.3	20	4.5	5.5	400	3.8	1.0	250	3.15	2.55	2.40	2.18		

SYNCHRONOUS BUCK REGULATORS

Features (SIC413):

- Integrated PWM controller and Gen III trench MOSFETs
- Quick and easy single chip converter
- Integrated current sense
- Cycle by cycle over-current protection
- Built-In bootstrap diode
- Output over-voltage protection
- Under voltage lockout
- Thermal shutdown
- Soft start
- Break-before-make operation

Features (SIC417):

- Integrated bootstrap diode
- Integrated configurable 150 mA LDO with bypass logic
- Temperature compensated current limit
- Pseudo fixed-frequency adaptive on-time control
- All ceramic solution enabled
- Independent enable pin for switcher and LDO
- Programmable input UVLO threshold
- Selectable ultra-sonic power-save mode
- Internal soft-start and soft-shutdown
- 1 % internal reference voltage
- Power good output and over voltage protection

For quantities of 2000 and up, call for quote.

MOUSER STOCK NO.	Siliconix Part No.	Package	Input Voltage Range (V)	Output Voltage Range (V)	Continuous Output Current (A)	Operating Frequency	HighSide/Lowside RDS(on) (mΩ)	Peak Efficiency (Typ)(V)	Operating Temp. (°C)	Price Each				
										1	100	500	1000	
Surface Mount														
781-SIC413CB-E3	SIC413CB-T1-E3	SOIC-8	4.75 to 26	0.6 to 13.2	4	500 kHz	35/19	93%	-25 to +125	1.58	1.28	1.20	1.09	
781-SIC417CD-E3	SIC417CD-T1-E3	MLPQ55-32	3.0 to 28	0.5 to 5.5	10	200kHz to 1MHz	27/9	95%	-25 to +125	2.54	2.06	1.94	1.75	

SWITCHMODE CONTROLLERS

For quantities of 2000 and up, call for quote.

MOUSER STOCK NO.	Siliconix Part No.	Package	Input Voltage		Supply Voltage		Output Voltage			Switching Frequency (Min)(MHz)	Price Each					
			(Min)(V)	(Max)(V)	(Min)(V)	(Max)(V)	(Min)(V)	(Typ)(V)	(Max)(V)		1	100	500	1000		
Surface Mount																
781-SI9114ADY-E3	SI9114ADY-E3	SO-14	15	200	9.5	16.5	3.94	4.00	4.06	0.45	3.02	2.45	2.30	2.09		
Thru-Hole																
781-SI9120DJ-E3	SI9120DJ-E3	DIP-16	15	450	9.5	13.5	3.88	4.00	4.12	1	1.76	1.43	1.34	1.22		

SWITCHMODE REGULATORS

For quantities of 2000 and up, call for quote.

Thru-Hole																
781-SI9100DJ02-E3	SI9100DJ02-E3	DIP-14	10	70	9.5	13.5	3.92	4.00	4.08	1	2.44	2.07	1.95	1.77		

BUS INTERFACE-DRIVER AND RECEIVER

For quantities of 2000 and up, call for quote.

MOUSER STOCK NO.	Siliconix Part No.	Package	Supply Voltage Range (Max)(V)	Bus Load Resistance (Max)(Ω)	Continuous Output Current (Max)(mA)	Features	Price Each							
							1	100	500	1000				
Surface Mount														
781-SI9200EY-E3	SI9200EY-E3	SO-8	-0.3 to 12	60	+/-100	Survives ground shorts & transients, single power supply, Intel 82526 CAN compatible	1.58	1.28	1.20	1.09				

POWER MOSFET DRIVERS

For quantities of 2000 and up, call for quote.

MOUSER STOCK NO.	Siliconix Part No.	Package	Supply Voltage Range (Max)(V)	Output Drive Capacity	Input Drive Logic	Features	Protection	Price Each							
								1	100	500	1000				
Surface Mount															
781-SI9912DY-T1-E3	SI9912DY-T1-E3	SO-8	4.5 to 30	2N-Ch	5V TTL/CMOS	250kHz to 1MHz switching, freq shutdown	Undervoltage shoot through	1.70	1.38	1.30	1.17				
Thru-Hole															
781-SI9910DJ-E3	SI9910DJ-E3	DIP-8	-0.3 to +18	1N-Ch	12V Logic	dv/dt, di/dt control	Short circuit, over current & under voltage	1.62	1.31	1.23	1.12				

MOTOR CONTROLLERS

For quantities of 2000 and up, call for quote.

MOUSER STOCK NO.	Siliconix Part No.	Package	Supply Voltage Range (Max)(V)	Output Current (Max)(A)	Input Drive Logic	Features	Protection	Price Each							
								1	100	500	1000				
Surface Mount															
781-SI9986CY-T1-E3	SI9986CY-T1-E3	SO-8	3.8 to 13.2	0.5A	TTL/CMOS	PWM, saturated	Shoot through	2.58	2.19	2.06	1.87				
781-SI9986DY-T1-E3	SI9986DY-T1-E3	SO-8	3.8 to 13.2	0.5A	TTL/CMOS	PWM, saturated	Shoot through	2.68	2.28	2.14	1.94				
781-SI9988DQ-T1-E3	SI9988DQ-T1-E3	TSSOP-8	3.8 to 13.2	0.6A	TTL/CMOS	PWM, saturated	Shoot through	3.23	2.62	2.46	2.23				
781-SI9978DW-E3	SI9978DW-E3	SO-24	20 to 40	4N-Ch	TTL/CMOS	PWM, brake, DC operation	Over current, under voltage	4.37	3.54	3.33	3.02				
781-SI9979CS-E3	SI9979CS-E3	SQFP-48	20 to 40	6N-Ch	TTL/CMOS	PWM hall sensor, computation, DC operation	Over current, under voltage, Commutation error	7.48	6.36	5.98	5.42				

LOW DROP-OUT VOLTAGE REGULATORS

For quantities of 2000 and up, call for quote.

MOUSER STOCK NO.	Siliconix Part No.	Package	Output Voltage (V)	Output Current (A)	Input Voltage		Drop-out Voltage (Max)(mV)	Line Regulation (Max)(%/V)	Shut-Down Supply Current (Max)(uA)	Price Each				
					(Min)(V)	(Max)(V)				1	100	500	1000	
Adjustable Surface Mount														
781-SI9181DQ-AD-E3	SI9181DQ-AD-T1-E3	TSSOP-8	1.5 to 5	0.35	2.0	6.0	575	0.18	1	.48	.39	.37	.33	
781-SI9183DT-AD-E3	SI9183DT-AD-T1-E3	SOT-23-3	1.5 to 5	0.15	2.0	6.0	380.0	0.18	1	.28	.23	.22	.20	
Fixed Surface Mount														
781-SI9183DT-33-E3	SI9183DT-33-T1-E3	SOT-23-5	3.3	0.15	2.0	6.0	380	0.18	1	.28	.23	.22	.20	
781-SI9183DT-50-E3	SI9183DT-50-T1-E3	SOT-23-5	5.0	0.15	2.0	6.0	380	0.18	1	.29	.24	.22	.20	
781-SIP21106DR33E3	SIP21106DR-33E3	SC-70-5	3.3	.15	2.2	6.0	135	0.2	1	.27	.22	.21	.21	