



IXYS
A Littelfuse Technology

Power Semiconductor 2020 - 2021 Product Catalog

A guide to selecting the right power semiconductor for your applications



About Littelfuse

Littelfuse products are vital components in applications that use electrical energy, from consumer electronics to vehicles and industrial facilities. Our history of innovation and technical expertise enable us to provide objective, comprehensive, and personalized customer solutions.

In 2018, Littelfuse acquired IXYS Corporation and created the IXYS: A Littelfuse Technology brand, which represents the company's comprehensive portfolio of advanced power semiconductor technologies, including silicon carbide and wide band gap solutions in discrete and module packages. These power semiconductor products make up one of the broadest portfolios used by power electronics design engineers today, consisting of rectifiers, fast diodes, MOSFETs, IGBTs, SSRs, and thyristors at various ratings in discrete outlines and in integrated power modules with the necessary driver IC devices.

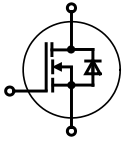
IXYS: A Littelfuse Technology provides a core platform for serving a wide range of applications to improve power conversion efficiency, generate clean energy, power data and communications networks, control motors, facilitate automation, improve medical equipment, and electrify transportation from bikes to cars to buses to trains to ships. Littelfuse power semiconductors are relied upon in the most strenuous environments on the planet.

From a technology standpoint, the integration of IXYS and Littelfuse portfolios creates a rare broad base supplier of high quality power semiconductors. Not only has Littelfuse taken steps, such as its IXYS acquisition, to reinforce its footprint in the power semiconductor industry, it has also invested heavily in the development and commercialization of emerging technologies such as silicon carbide. In 2015, Littelfuse invested in and later acquired Monolith Semiconductor Inc., a Texas-based start-up company developing silicon carbide power devices for broad application usage. This technology adds another key option for power electronics designers to optimize their designs for energy efficiency, power density, and reduced system level costs.

Littelfuse boasts a proud track record of customer satisfaction, manufacturing excellence, and stable growth; much of which can be traced to deep roots as a world leader in circuit protection. Having the determination to integrate such important capabilities in power semiconductor technology demonstrates why Littelfuse is, and will continue to be, an industry innovator and high service supplier for its power electronics customers.

Littelfuse SiC MOSFETs offer a rewarding alternative to traditional Si based power transistor devices. The MOSFET device structure enables lower per-cycle switching losses and improved light load efficiency when compared to similarly rated IGBTs. Inherent material properties allow the SiC MOSFET to outclass its Si MOSFET counterparts in terms of blocking voltage, specific on resistance, and junction capacitances.

Littelfuse SiC Schottky Diodes have negligible reverse recovery current, high surge capability, and a maximum operating junction temperature of 175°C. These diodes are ideal for applications where improvements in efficiency, reliability, and thermal management are desired.



SiC MOSFETs

Part Type	V _{DSS}	I _D T _C = 25°C	I _D T _C = 100°C	R _{DS(on)} typ. T _J = 25°C	C _{iss} typ	Q _g typ	R _{thJC}	Fig. No.	Package style Outline drawings on pages O-60...O-64	
◇ Under Development	V	A	A	mΩ	pF	nC	K/W			
◇ LSIC1MO120E0025	1200	90	60	25	4465	250	0.30	L014a	L012b	
◇ LSIC1MO120E0040		65	50	40	2825	160	0.42			
LSIC1MO120E0080		39	25	80	1825	95	0.70			
LSIC1MO120E0120		27	18	120	1125	80	0.90			
LSIC1MO120E0160		22	14	160	870	57	1.00			
◇ LSIC1MO120G0025		90	60	25	4465	250	0.30			L014d
◇ LSIC1MO120G0040		65	50	40	2825	160	0.42			
◇ LSIC1MO120G0080		39	25	80	1825	95	0.70			
◇ LSIC1MO120G0120		27	18	120	1125	80	0.90			
◇ LSIC1MO120G0160		22	14	160	870	57	1.00			
◇ LSIC1MO120T0080	1700	39	25	80	1825	95	0.70	L012b	L014d	
◇ LSIC1MO120T0120		27	18	120	1125	80	0.90			
◇ LSIC1MO120T0160		22	14	160	870	57	1.00			
◇ LSCI1MO120N0025		90	60	25	4465	250	0.42			L027a
LSIC1MO170E1000	1700	5	3.5	750	200	15	2.30	L014a	TO-247-4L	
➤ LSIC1MO170T0750		5	3.5	750	200	15	2.30	L012b		
◇ LSIC1MO170H0750		5	3.5	750	200	15	2.30	L019a		

