

Luminus. Power you can rely on.

Luminus has more than two decades of experience designing high power wide bandgap semiconductor devices for a wide range of applications. Our customers rely on our chip design expertise to deliver industry-leading performance under extreme conditions. Luminus engineers also develop unique packaging solutions to remove heat and meet the most challenging reliability requirements.

HIGH RELIABILITY

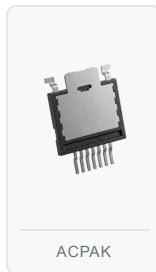
Designed for continuous operation and reliable power cycling in the harshest conditions.

ENERGY EFFICIENCY

Lower switching and conduction losses improve efficiency on every cycle.

LONG LIFETIME

Chip-level design choices extend service life beyond conventional silicon.



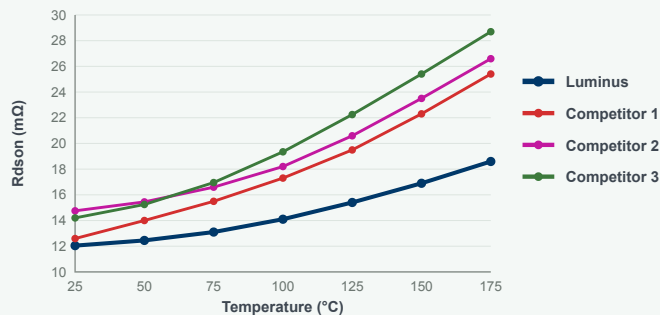
SiC MOSFETs

Luminus SiC MOSFETs eliminate tail current, reduce switching loss and shrink complementary passives. Low on-state resistance and a smaller die than IGBTs enable compact packages and reduced capacitance, ideal for renewable energy, motor controllers, UPS, EVs and HVAC systems.

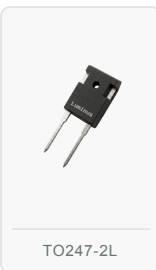
Balanced and ultra-high-speed variants are in development. Ceramic isolated packages (TO-247i) add an AlN ceramic insert for 2.5kV isolation. Contact your Luminus salesperson for the latest roadmap.

FLAGSHIP 1200V 13mΩ MOSFET

Up to 27% lower on-resistance at 175°C than the closest competing SiC MOSFET.



RDS(on) vs. temperature, ID=50A, VGS=18V. Internal test data.

[View SiC MOSFETs →](#)


SiC Schottky Barrier Diodes

Luminus SiC Schottky barrier diodes reduce capacitive charge (Qc) to minimize reverse recovery loss for fast switching, and hold consistent performance across a wide temperature range.

Low-Vf, high-surge and balanced variants are available for PFC, solar inverters, on-board chargers and EV charging, in standard and custom packages.

[View Schottky Diodes →](#)

INDUSTRIES THAT RELY ON LUMINUS POWER

Solar micro & string inverters

EV on board chargers & DC/DC

Industrial power supplies

EV charging stations

Motor drives & controllers

Data centers & server power



PRODUCT PORTFOLIO

SiC MOSFETs

Part Number	Package	Gen	V _{DS} (V)	R _{dson} mΩ 25°C
AMR1k0V170E1	TO247-3L	1	1700	1000
AMR075V120E2	TO247-3L	2	1200	75
AAR075V120E2	TO247-3L	2	1200	75
AMR030V120E2	TO247-3L	2	1200	30
AMR065V065E2	TO247-3L	2	650	65
AAR065V065E2	TO247-3L	2	650	65
AMR035V065E2	TO247-3L	2	650	35
AMR027V065E2	TO247-3L	2	650	27
AMR013V120H3	TO247-4L	3	1200	13
AAR013V120H3	TO247-4L	3	1200	13
AMR020V120H2	TO247-4L	2	1200	20
AMR030V120H2	TO247-4L	2	1200	30
AAR030V120H2	TO247-4L	2	1200	30
AMR075V120H2	TO247-4L	2	1200	75
AAR075V120H2	TO247-4L	2	1200	75
AMR009V075H2	TO247-4L	2	750	9
AAR009V075H2	TO247-4L	2	750	9
AMR027V065H2	TO247-4L	2	650	27
AAR027V065H2	TO247-4L	2	650	27

Part Number	Package	Gen	V _{DS} (V)	R _{dson} mΩ 25°C
AMR035V065H2	TO247-4L	2	650	35
AAR035V065H2	TO247-4L	2	650	35
AMR050V065H2	TO247-4L	2	650	50
AAR050V065H2	TO247-4L	2	650	50
AMR065V065H2	TO247-4L	2	650	65
AMR450V170E1i	TO247i-3L	1	1700	450
AMR020V120E2i	TO247i-3L	2	1200	20
AMR030V120E2i	TO247i-3L	2	1200	30
AMR060V120E2i	TO247i-3L	2	1200	60
AMR065V065E2i	TO247i-3L	2	650	65
AMR035V065E2i	TO247i-3L	2	650	35
AMR013V120H3i	TO247i-4L	2	1200	13
AMR020V120H2i	TO247i-4L	2	1200	20
AMR030V120H2i	TO247i-4L	2	1200	30
AMR075V120H2i	TO247i-4L	2	1200	75
AMR009V075S2	ACPAK	2	750	9
AMR027V065S2	ACPAK	2	650	27
AAR027V065S2	ACPAK	2	650	27
AMR050V065S2	ACPAK	2	650	50

Part Number	Package	Gen	V _{DS} (V)	R _{dson} mΩ 25°C
AMR013V120M3	QDPAK	3	1200	13
AMR040V120M2	QDPAK	3	1200	40
AAR040V120M2	QDPAK	3	1200	40
AMR060V120M2	QDPAK	2	1200	60
AMR009V075M2	QDPAK	2	750	9
AMR060V120K2	TO263-7L	2	1200	60
AMR030V120K2	TO263-7L	2	1200	30
AMR013V120K3	TO263-7L	2	1200	13
AMR050V065K2	TO263-7L	2	650	50
AMR027V065K2	TO263-7L	2	650	27
AMR020V120K2	TO263-7L	2	1200	20
AMR009V075U2	TOLT	2	750	9
AMR027V065U2	TOLT	2	650	27
AMR050V065U2	TOLT	2	650	50
AMR009V075T2	TOLL	2	750	9
AMR027V065T2	TOLL	2	650	27
AMR050V065T2	TOLL	2	650	50
AMR065V065T2	TOLL	2	650	65
AMR009V075T2	TOLL	2	750	9

SiC Schottky Barrier Diodes

Part Number	Package	Gen	V _{DC} (V)	I _{max} (A)
ASA010V120A5	TO220	5	1200	10
ASA010V065A4	TO220	4	650	10
ASA008V065A4	TO220	4	650	8
ASA006V065A4	TO220	4	650	6
ASA004V065A4	TO220	4	650	4
ASA040V200B5	TO247-2L	5	2000	40
ASA050V170B5	TO247-2L	5	1700	50
ASA025V170B5	TO247-2L	5	1700	25
ASA060V120B5	TO247-2L	5	1200	60
ASA040V120B5	TO247-2L	5	1200	40
ASA030V120B5	TO247-2L	5	1200	30
ASA020V120B5	TO247-2L	5	1200	20

Part Number	Package	Gen	V _{DC} (V)	I _{max} (A)
ASA015V120B5	TO247-2L	5	1200	15
ASA040V120E5	TO247-3L	5	1200	40
ASA030V120E5	TO247-3L	5	1200	30
ASA020V120E5	TO247-3L	5	1200	20
ASA016V065E4	TO247-3L	4	650	16
ASA040V065E4	TO247-3L	4	650	16
ASA008V065F4	TO252	4	650	8
ASA006V065F4	TO252	4	650	6
ASA004V065F4	TO252	4	650	4
ASA040V065G3	TO263-2L	3	650	40
ASA010V120S5	ACPAK	5	1200	10



Talk to Luminus Power →



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