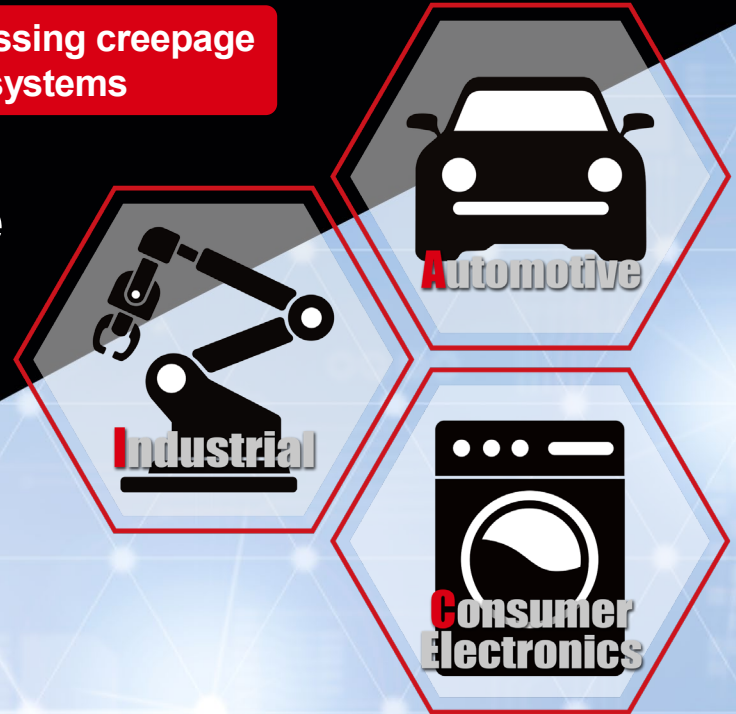


Compact surface mount package with significantly suppressing creepage discharge supports the high voltage requirements of xEV systems

Wide Creepage Distance Package SiC Schottky Barrier Diodes

SCS2xxAN (650V)

SCS2xxKN (1,200V)



The SCS2xxAN (650V) and SCS2xxKN (1,200V) series of SiC Schottky barrier diodes achieve wide creepage distance in a compact surface mount package. This reduces the need for special insulation measures such as potting.

Features

- **Proprietary package design ensures industry-leading creepage distance**

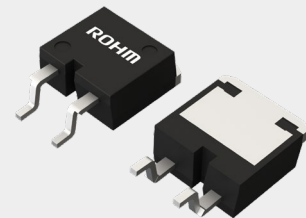
Secures sufficient creepage distance in a single device, reducing the burden of implementing special insulation measures

- **Provides low switching loss that cannot be achieved with silicon fast recovery diodes (Si FRDs)**

SiC Schottky barrier diodes (SiC SBDs) offer superior reverse recovery characteristics that reduce switching loss over silicon fast recovery diodes (FRDs), contributing to lower power consumption in electrical equipment



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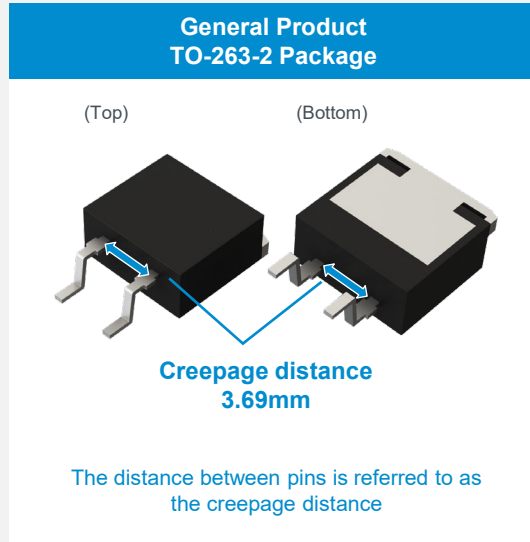


TO-263-2L
(15.1×10.1×4.5mm)

Class-Leading Creepage Distance (Comparison of Package Shape and Creepage Distance)

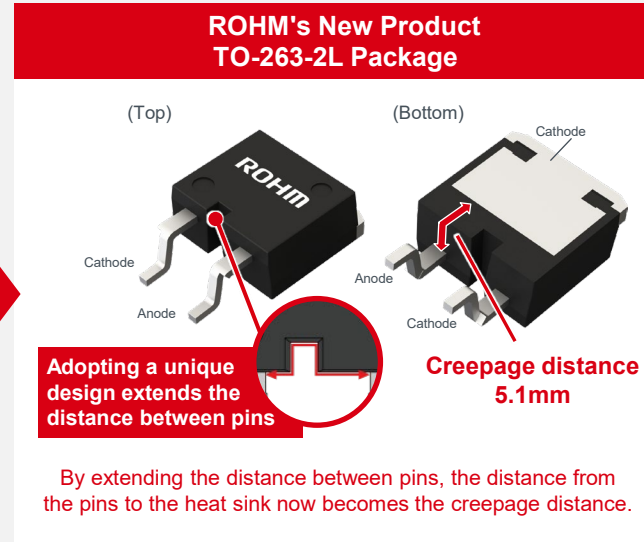
Creepage distance

The shortest distance between two conductive paths (terminals) along the surface of the device package. Tracking (creepage discharge) can occur in polluted environments when the creepage distance is short, potentially causing system failures.



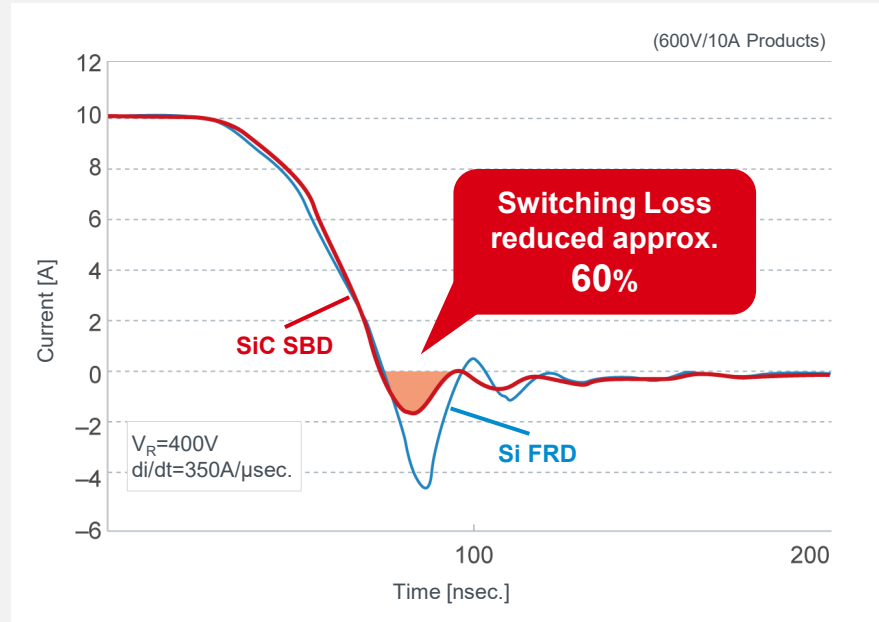
Creepage distance

approx. 1.3x



Ensuring sufficient creepage distance even in a compact surface-mount package reduces the burden of additional insulation measures by reducing the occurrence of surface discharge

Switching Waveform Loss Comparison



Superior reverse recovery characteristics significantly reduce switching losses, contributing to lower equipment power consumption

Wide Creepage Distance Package SiC Schottky Barrier Diode Lineup

Part No.		Absolute Maximum Ratings			Electrical Characteristics (T _j =25°C)				Package
For Automotive (AEC-Q101 Qualified)	For Industrial Equipment	V _{RM} [V]	I _O [A]	T _j [°C]	V _F (Max) [V]	I _F [A]	I _R (Max) [μA]	V _R [V]	
New SCS210ANHR	☆SCS210AN	650	10	175	1.55	10	200	600	TO-263-2L
New SCS212ANHR	☆SCS212AN	650	12	175	1.55	12	240	600	TO-263-2L
New SCS215ANHR	☆SCS215AN	650	15	175	1.55	15	300	600	TO-263-2L
New SCS220ANHR	☆SCS220AN	650	20	175	1.55	20	400	600	TO-263-2L
New SCS230ANHR	☆SCS230AN	650	30	175	1.55	30	600	600	TO-263-2L
New SCS205KNHR	☆SCS205KN	1,200	5	175	1.6	5	100	1,200	TO-263-2L
New SCS210KNHR	☆SCS210KN	1,200	10	175	1.6	10	200	1,200	TO-263-2L
New SCS220KNHR	☆SCS220KN	1,200	20	175	1.6	20	400	1,200	TO-263-2L

☆: Under Development

Click on the icon to access the product page and the icon to view the datasheet on ROHM's website.

Application Examples

• Automotive systems

Onboard chargers (OBCs), DC-DC converters, HV heaters (PTC heaters), etc.

• Industrial Equipment

AC servos for industrial robots, PV inverters, charging stations, uninterruptible power supplies (UPS), and more



Onboard Chargers



HV Heaters (PTC Heaters)









AC Servos



Charging Stations

SiC Schottky Barrier Diode Lineup

Reverse Voltage [V]	Forward Current [A]	TO-263-2L	TO-263AB (LPTL)	TO-220AC (TO-220ACGE)	TO-220AC (TO-220ACG)	TO-220FM (TO-220FM-2LGE)	TO-247 (TO-247N)
		 16 models	 19 models	 7 models	 10 models	 7 models	 16 models
650	4 to 40	☆SCS2xxAN SCS2xxANHR	SCS2xxAJ SCS2xxAJHR SCS3xxAJ	SCS3xxAG	SCS2xxAG	SCS3xxAM	SCS2xxAE2 SCS2xxAE SCS2xxAE2HR
1,200	5 to 40	☆SCS2xxKN SCS2xxKNHR			SCS2xxKG		SCS2xxKE2 SCS2xxKE2HR

The xx in the part number indicates the forward current value (e.g. SCS310AM is a 10A product). Products with HR at the end of the part number are automotive-grade (AEC-Q101 qualified).

Package names in parentheses () denote ROHM's package type.

☆: Under Development

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