



Working Together for a Greener Society

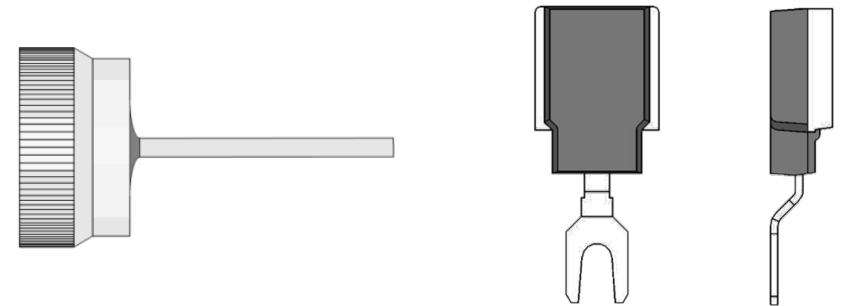
Future of Power Electronics and the Earth



Alternator Diodes

◆ Press-fit

◆ SG-10



Features of Alternator Diode

This document introduces our rectifier diodes designed for automotive alternator circuits. We offer two types of packages: press-fit and SG-10. Both types can withstand the harsh environments of the automotive engine compartment.

✓ **Easy to mount**

The press-fit type can be mounted simply by inserting it into the heatsink. This reduces the soldering process and workloads.

✓ **Space-saving**

We offer suffix "S" type and suffix "R" type of reverse polarity type. Combining these products allows you to efficiently place diodes in a limited space while maintaining enhanced heat dissipation.

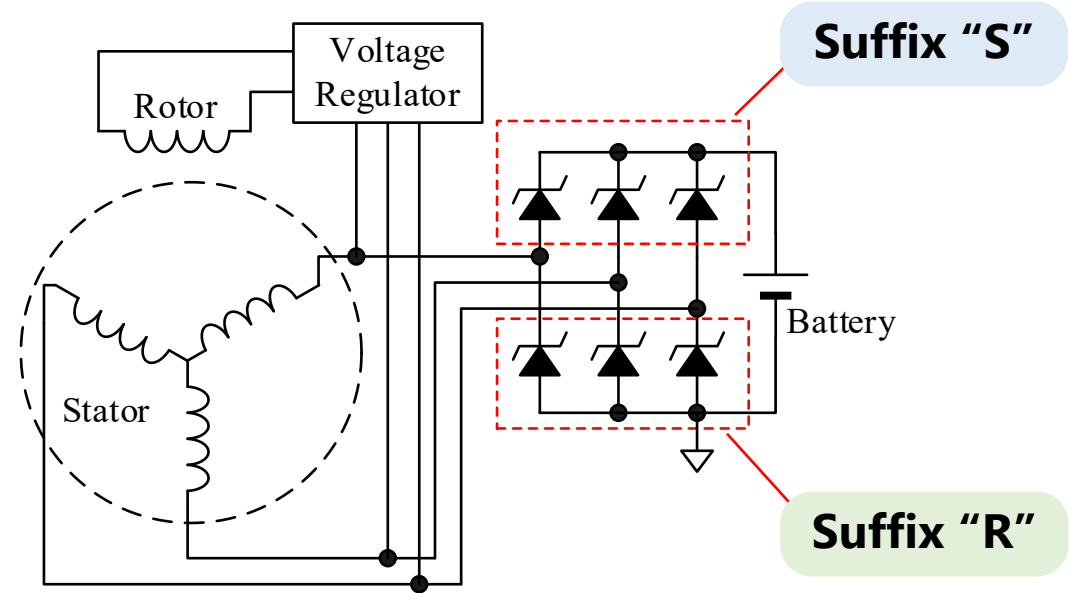
✓ **High Surge Capability**

Load dump surge protection standard "JASO A-1" compliant

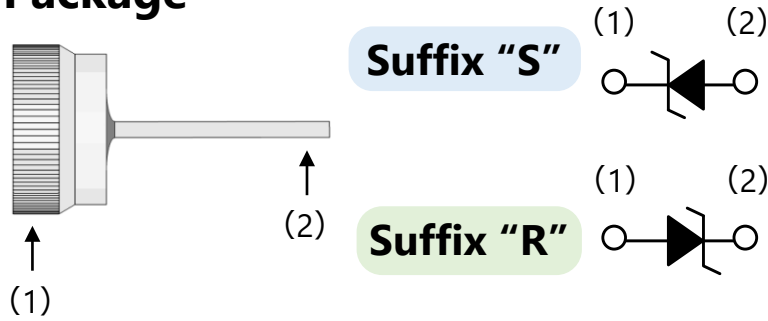
✓ **High Reliability**

Our alternator diodes have a high junction temperature rating and can withstand the harsh environments of the automotive engine compartment.

Typical Application



Package



Pin Number	Suffix "S"	Suffix "R"
(1)	Cathode	Anode
(2)	Anode	Cathode

Features

- **Lineup of 12 V and 24 V System**
- **No Soldering Required**
Can be mounted simply by inserting it into the heatsink, lowering the soldering process and workloads.
- **High Surge Capability**
Load dump surge protection standard "JASO A-1" compliant
- **High Reliability**
High junction temperature rating allows this package to withstand the harsh environments of the automotive engine compartment.

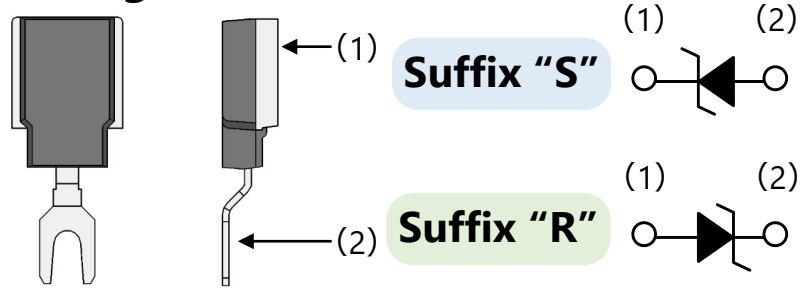
Selection Guide

Part Number	V_{RM}	$I_{F(AV)}$	T_J (Max.)	V_Z	V_F (Max.)	I_R (Max.)
SG-17VLZ40 ⁽¹⁾	32 V	50 A	235 °C	36 V to 44 V	1.25 V	1 μ A
SG-17VLZ	17 V	50 A	235 °C	20 V to 26 V	1.20 V	1 μ A
SG-K17VLEFG ⁽²⁾	17 V	50 A	200 °C	20 V to 26 V	0.67 V	20 μ A
SG-17NNJ23	17 V	45 A	210 °C	20 V to 26 V	0.92 V	1 μ A

⁽¹⁾ Not compliant with JASO A-1

⁽²⁾ Under development

Package



Pin Number	Suffix "S"	Suffix "R"
(1)	Cathode	Anode
(2)	Anode	Cathode

Features

- **Lineup of 12 V and 24 V System**
- **High Surge Capability**
Load dump surge protection standard "JASO A-1" compliant
- **High Reliability**
High junction temperature rating allows this package to withstand the harsh environments of the automotive engine compartment.

Selection Guide

Part Number	V_{RM}	$I_{F(AV)}$	T_J (Max.)	V_Z	V_F (Max.)	I_R (Max.)
SG-10LZ40	32 V	30 A	160 °C	36 V to 44 V	1.20 V	50 μ A
SG-10LXZ23	17 V	35 A	160 °C	20 V to 28 V	1.05 V	50 μ A
SG-10LZ23	17 V	30 A	160 °C	20 V to 28 V	1.20 V	50 μ A
SG-10L*	200 V	30 A	160 °C	—	1.20 V	250 μ A

* Not compliant with JASO A-1. Used with TVS diodes.

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