

# Schottky Diode



RoHS  
Compliant



## Features:

- Low power loss, high efficiency
- High current capability, low  $V_F$
- High reliability
- High surge current capability
- Epitaxial construction
- Guard-ring for transient protection
- For use in low voltage, high frequency inverter, free wheeling, and polarity protection application

## Specifications:

### Mechanical Data:

Cases	: Moulded plastic
Lead	: Pure tin plated, lead free, solderable per MIL-STD-202, Method 208 guaranteed
Polarity	: Colour band denotes cathode end
High temperature soldering guaranteed	: 260°C/10 seconds/0.375", (9.5mm) lead lengths at 5lbs., (2.3kg) tension
Weight	: 1.1g

## Maximum Ratings and Electrical Characteristics:

Rating at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

Parameters	Symbol	SR309	SR310	Units
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	90	100	V
Maximum RMS Voltage	$V_{RMS}$	63	70	
Maximum DC Blocking Voltage	$V_{DC}$	90	100	
Maximum Average Forward Rectified Current	$I_{(AV)}$	3		A
Peak Forward Surge Current, 8.3ms Single Half A Sine-wave Superimposed on Rated Load (JEDEC method)	$I_{FSM}$	80		
Maximum Instantaneous Forward Voltage at 3A	$V_F$	0.85		V



# Schottky Diode

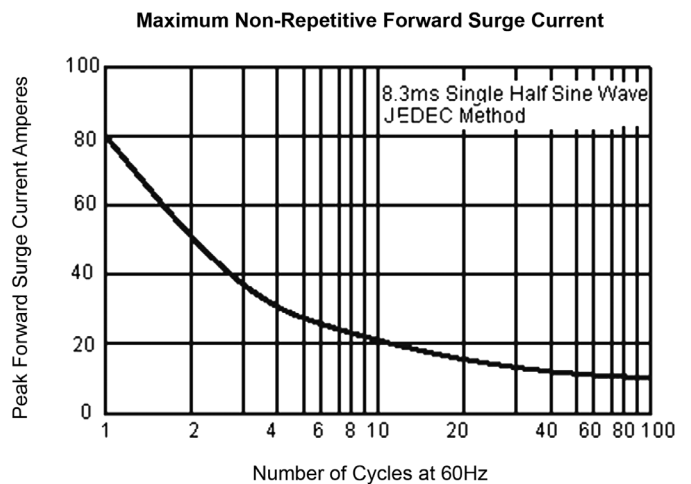
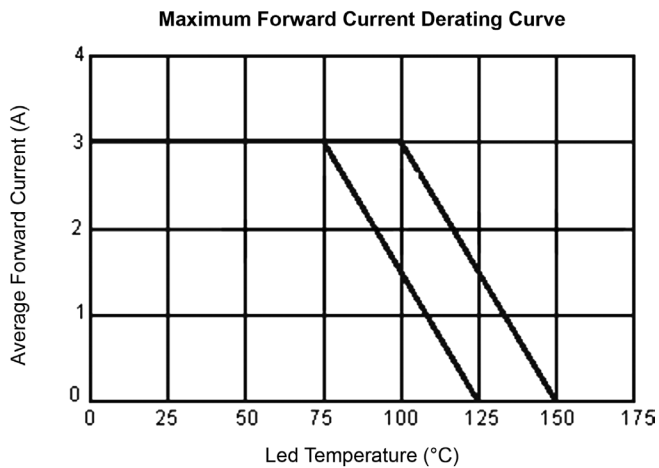


Parameters	Symbol	SR309	SR310	Units
Maximum DC Reverse Current at $T_A = 25^\circ\text{C}$ at Rated DC Blocking Voltage at $T_A = 125^\circ\text{C}$	$I_R$	0.1 2		$\mu\text{A}$ $\mu\text{A}$
Typical Junction Capacitance (Note 2)	$C_j$	72		pF
Typical Thermal Resistance (Note 1)	$R_{\theta JA}$ $R_{\theta JC}$	50 15		$^\circ\text{C/W}$
Operating Temperature Range	$T_J$	-65 to +125		$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	-65 to +150		

**Notes:**

1. Mount on Cu-Pad Size 16mm × 16mm on PCB
2. Measured at 1MHz and Applied Reverse Voltage of 4V DC.

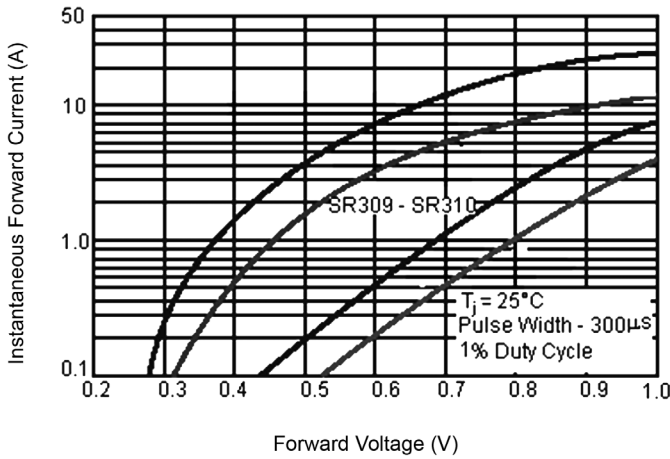
## Ratings and Characteristic Curves (SR309, SR310)



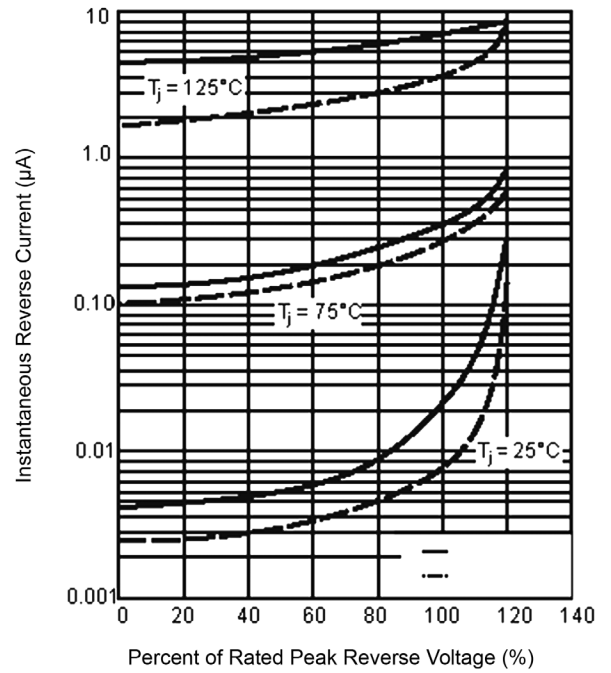
# Schottky Diode



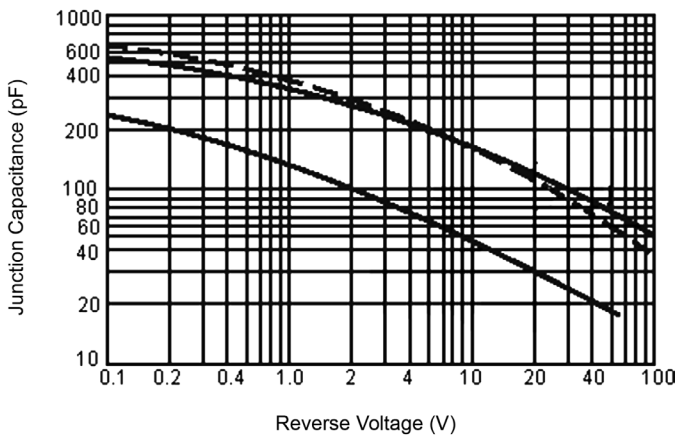
Typical Forward Characteristics



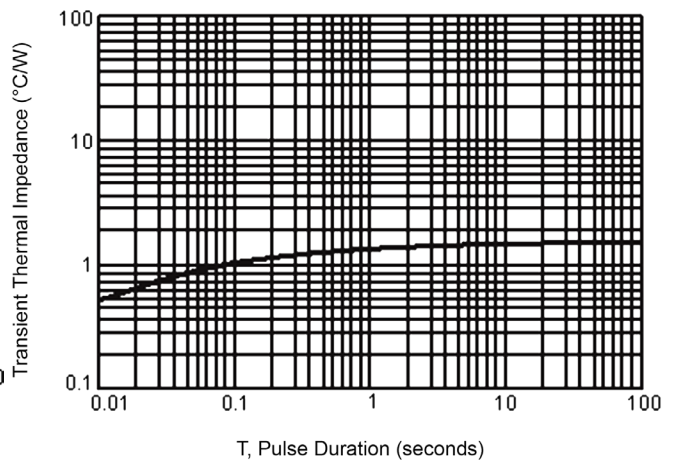
Typical Reverse Characteristics



Typical Junction Capacitance



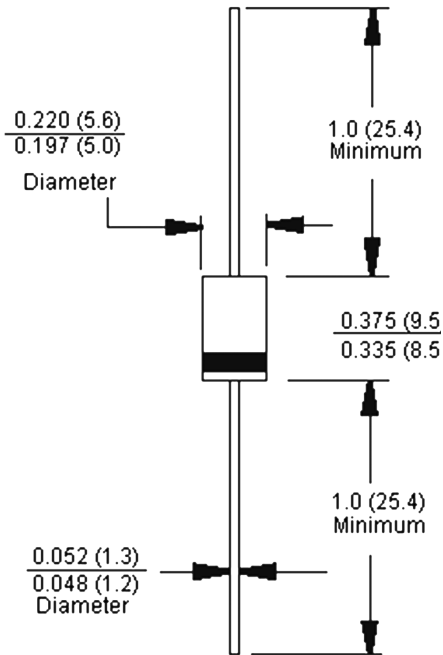
Typical Transient Thermal Characteristics



# Schottky Diode



## DO-201AD



Dimensions : Inches (Millimetres)

### Part Number Table

Description	Part Number
Diode, Schottky, 3A, 90V	SR309
Diode, Schottky, 3A, 100V	SR310

**Important Notice :** This data sheet and its contents (the "Information") belong to the members of the Premier Farnell group of companies (the "Group") or are licensed to it. No licence is granted for the use of it other than for information purposes in connection with the products to which it relates. No licence of any intellectual property rights is granted. The Information is subject to change without notice and replaces all data sheets previously supplied. The Information supplied is believed to be accurate but the Group assumes no responsibility for its accuracy or completeness, any error in or omission from it or for any use made of it. Users of this data sheet should check for themselves the Information and the suitability of the products for their purpose and not make any assumptions based on information included or omitted. Liability for loss or damage resulting from any reliance on the Information or use of it (including liability resulting from negligence or where the Group was aware of the possibility of such loss or damage arising) is excluded. This will not operate to limit or restrict the Group's liability for death or personal injury resulting from its negligence. Multicomp is the registered trademark of the Group. © Premier Farnell plc 2012.

[www.element14.com](http://www.element14.com)  
[www.farnell.com](http://www.farnell.com)  
[www.newark.com](http://www.newark.com)

