

# 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	: DO-41 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	: 0.33g

## 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	SR103	SR104	SR106	Units
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	30	40	60	V
Maximum RMS Voltage	$V_{RMS}$	21	28	42	
Maximum DC Blocking Voltage	$V_{DC}$	30	40	60	
Maximum Average Forward Rectified Current	$I_{(AV)}$	1			A
Peak Forward Surge Current, 8.3ms Single Half A Sine-wave Superimposed on Rated Load (JEDEC method)	$I_{FSM}$	30			

# Schottky Diode

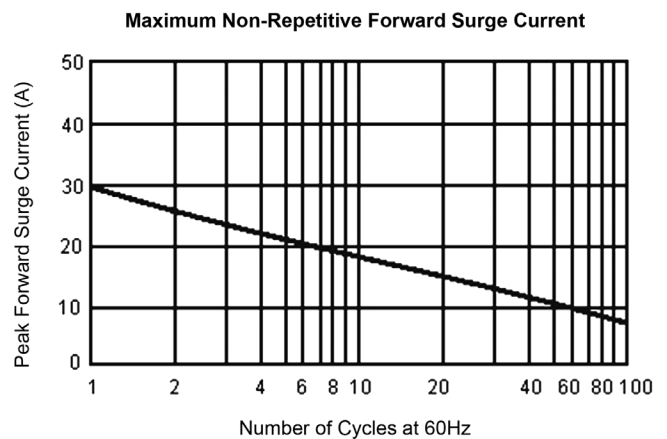
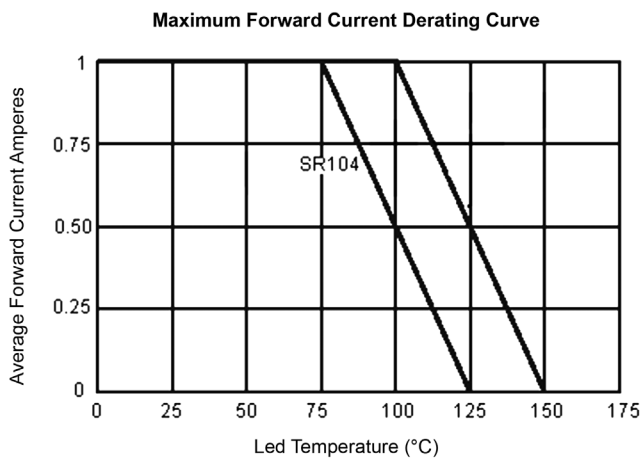


Parameters	Symbol	SR103	SR104	SR106	Units
Maximum Instantaneous Forward Voltage at 1A	$V_F$	0.55		0.7	V
Maximum DC Reverse Current at $T_A = 25^\circ\text{C}$ at Rated DC Blocking Voltage at $T_A = 125^\circ\text{C}$	$I_R$	0.5			$\mu\text{A}$ $\mu\text{A}$
		10		5	
Typical Junction Capacitance (Note 2)	$C_j$	80		65	pF
Typical Thermal Resistance (Note 1)	$R_{\theta JA}$	90			$^\circ\text{C}/\text{W}$
Operating Junction Temperature Range	$T_J$	-65 to +125		-65 to +150	$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	-65 to +150			

**Notes:**

1. Mount on Cu-Pad Size 5m × 5mm on PCB.
2. Measured at 1MHz and Applied Reverse Voltage of 4V DC.

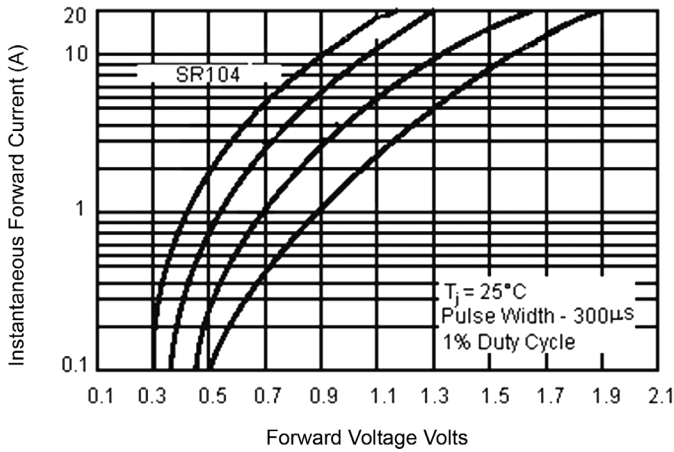
## Ratings and Characteristic Curves



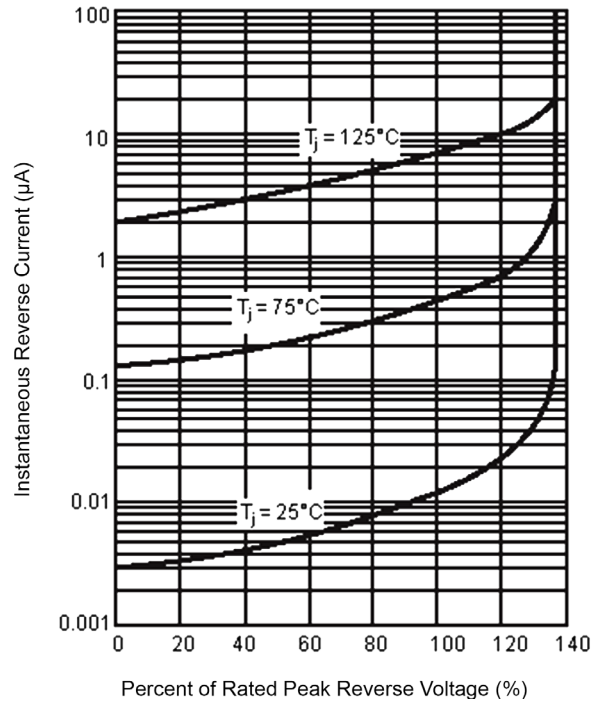
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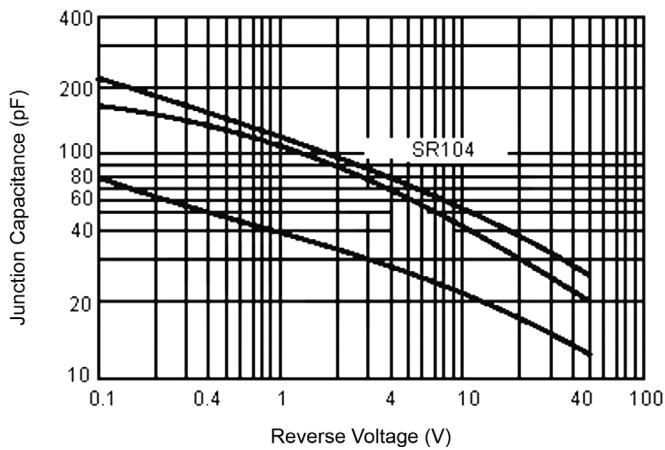
Typical Forward Characteristics



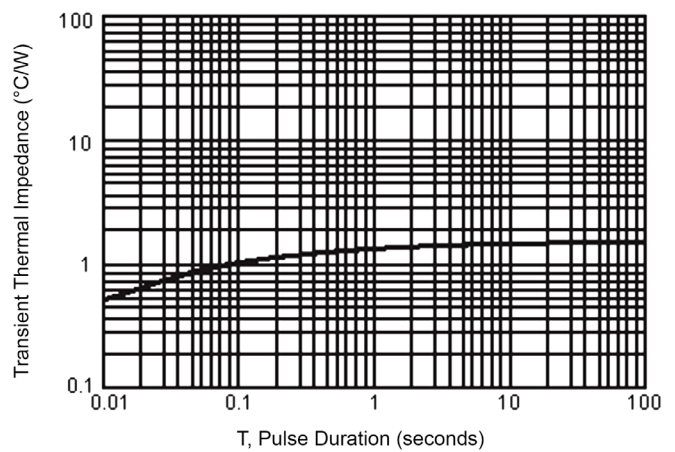
Typical Reverse Characteristics



Typical Junction Capacitance



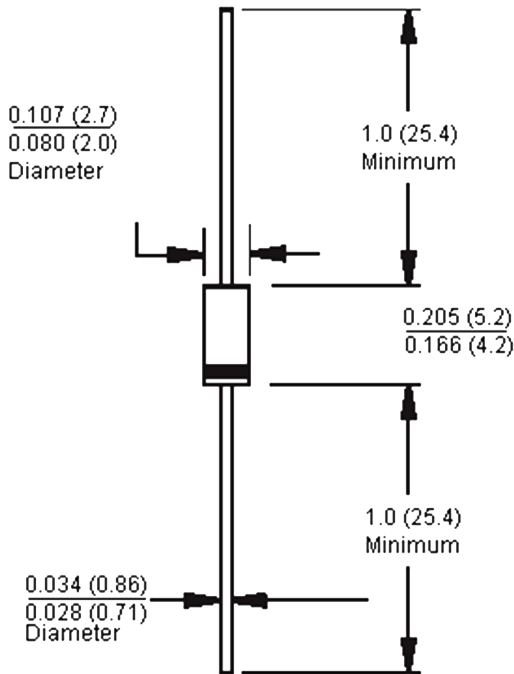
Typical Transient Thermal Characteristics



# Schottky Diode



DO-41



Dimensions : Inches (Millimetres)

## Part Number Table

Description	Part Number
Diode, Schottky, 1A, 30V	SR103
Diode, Schottky, 1A, 40V	SR104
Diode, Schottky, 1A, 60V	SR106

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