

Description

The RW54 is a 40 V, 5.0 A Schottky diode with allowing improvements in V_F and I_R characteristics.

These characteristic features contribute to improving power supply efficiency and to enabling high-frequency systems.

Features

- Bare Leads: Pb-free (RoHS Compliant)

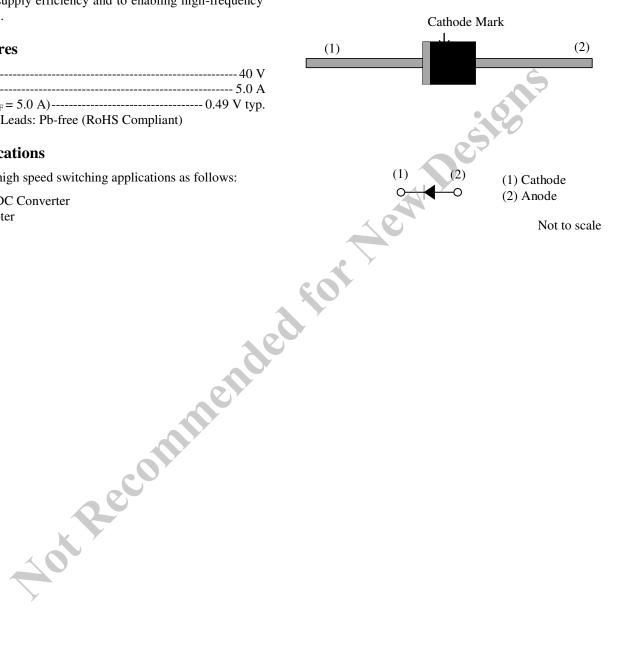
Applications

The high speed switching applications as follows:

- DC-DC Converter
- Adapter

Package

Axial ($\phi 6.5 \times 8.0L / \phi 1.4$)



Absolute Maximum Ratings

Unless otherwise specified, $T_A = 25$ °C.

Parameter	Symbol	Rating	Unit	Conditions			
Peak Repetitive Reverse Voltage	V _{RSM}	40	V				
Repetitive Reverse Voltage	V _{RM}	40	V				
Average Forward Current	I _{F(AV)}	5.0	А	See Figure 2 and Figure 3			
Surge Forward Current	I _{FSM}	120	А	Half cycle sine wave, positive side, 10 ms, 1 shot			
I ² t Limiting Value	I ² t	72	A ² s	$1 \text{ ms} \le t \le 10 \text{ms}$			
Junction Temperature	T _J	-40 to 150	°C	3			
Storage Temperature	T _{STG}	-40 to 150	°C				
Electrical Characteristics Unless otherwise specified, $T_A = 25$ °C.							

Electrical Characteristics

Unless otherwise specified, $T_A = 25 \ ^{\circ}C$	2.						
Parameter	Symbol	Conditions	Min.	Тур.	Max.	Unit	
Forward Voltage Drop	$V_{\rm F}$	I _F = 5.0 A		0.49	0.55	V	
Reverse Leakage Current	I _R	$V_R = V_{RM}$		_	1.0	mA	
Reverse Leakage Current Under High Temperature	$H \cdot I_R$	$V_R = V_{RM}, T_J = 150 \ ^\circ C$			150	mA	
Thermal Resistance ⁽¹⁾	$R_{th(J-L)}$	See Figure 1			8.0	°C/W	

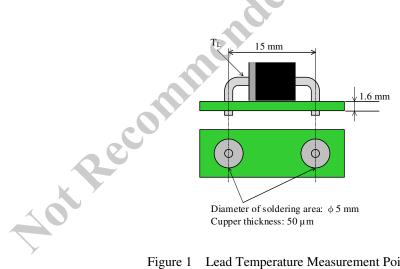


Figure 1 Lead Temperature Measurement Point

 $^{^{(1)}}R_{th\,(J\text{-}L)}$ is thermal resistance between junction and lead.

Rating and Characteristic Curves

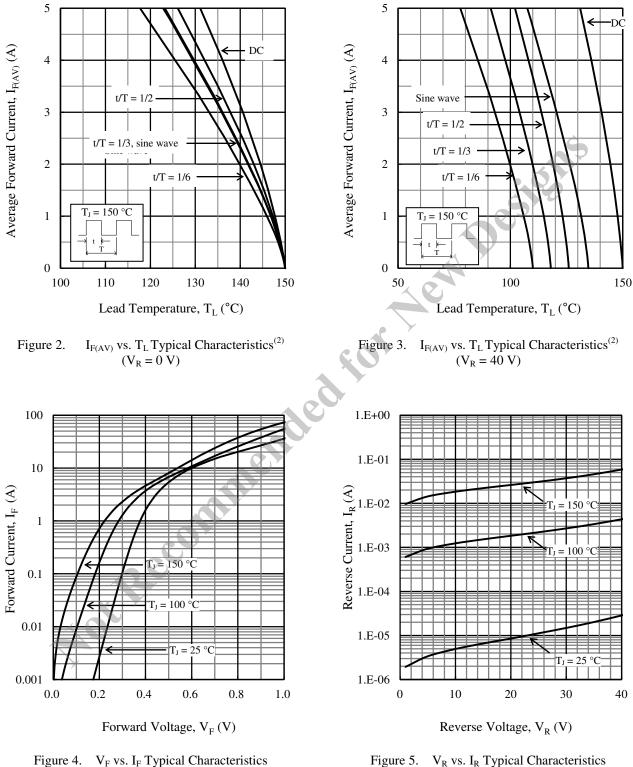
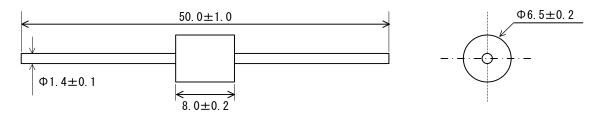


Figure 5. V_R vs. I_R Typical Characteristics

⁽²⁾ See Figure 1 for the lead temperature measurement conditions.

Physical Dimensions

• Axial (φ6.5 × 8.0L / φ1.4)

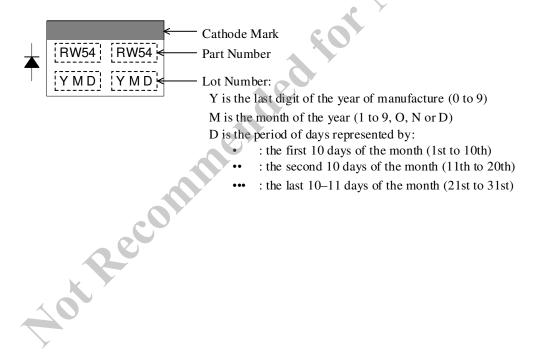


NOTES:

- Dimensions in millimeters
- Bare leads: Pb-free (RoHS compliant)
- When soldering the products, it is required to minimize the working time, within the following limits: Flow: $260 \pm 5 \text{ °C} / 10 \pm 1 \text{ s}, 2 \text{ times}$

Soldering Iron: 380 ± 10 °C / 3.5 ± 0.5 s, 1 time (Soldering should be at a distance of at least 1.5 mm from the body of the product.)

Marking Diagram



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