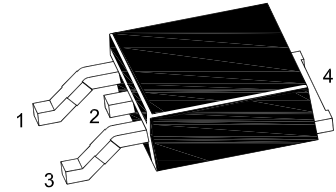
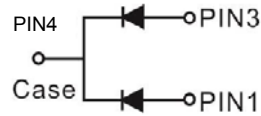


# SDB10300R

## Surface Mount Schottky Barrier Rectifier

### Features

- Low Forward Voltage Drop
- Reliable High Temperature Operation



TO-252 Plastic Package

### Absolute Maximum Ratings at $T_a = 25^\circ\text{C}$ unless otherwise specified

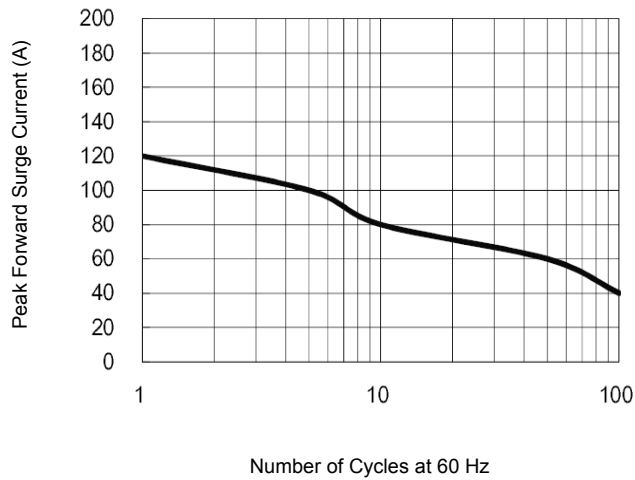
Parameter	Symbol	Value	Unit
Peak Repetitive Reverse Voltage	$V_{RRM}$	300	V
Working Peak Reverse Voltage	$V_{RWM}$	300	V
DC Blocking Voltage	$V_R$	300	V
Average Forward Current	$I_{F(AV)}$	10	A
Peak Forward Surge Current at 1/2 60 Hz	$I_{FSM}$	120	A
Peak repetitive reverse current at $t_p = 2 \mu\text{s}$ , 1 KHz	$I_{RRM}$	1	A
Typical Thermal Resistance Junction to Case	$R_{\theta JC}$	6	$^\circ\text{C/W}$
Operating Junction Temperature Range	$T_j$	- 65 to + 175	$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	- 65 to + 175	$^\circ\text{C}$

### Characteristics at $T_a = 25^\circ\text{C}$ unless otherwise specified

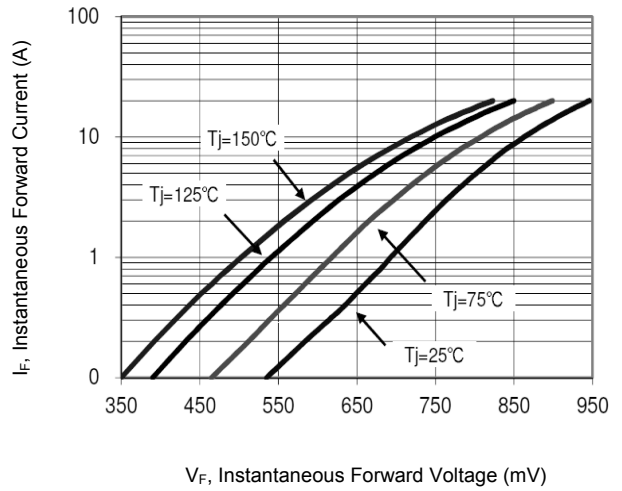
Parameter	Symbol	Max.	Unit
Forward Voltage <sup>1)</sup> at $I_F = 5 \text{ A}$ , at $I_F = 5 \text{ A}$ , $T_j = 125^\circ\text{C}$	$V_F$	0.92 0.8	V
Reverse Current <sup>1)</sup> at $V_R = 300 \text{ V}$ at $V_R = 300 \text{ V}$ , $T_j = 125^\circ\text{C}$	$I_R$	100 10	$\mu\text{A}$ mA

<sup>1)</sup> Pulse width < 300  $\mu\text{s}$ , Duty cycle < 2%.

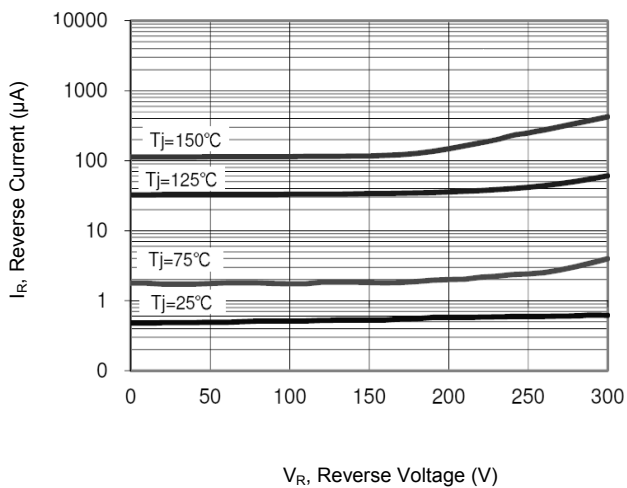
# SDB10300R



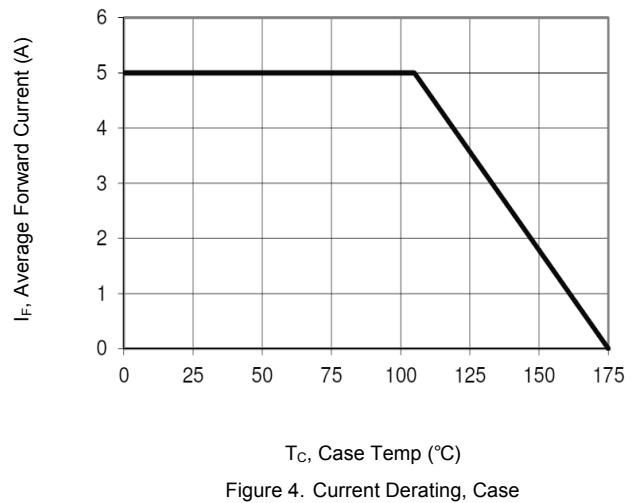
Number of Cycles at 60 Hz  
Figure 1. Maximum Repetitive Surge Current



$V_F$ , Instantaneous Forward Voltage (mV)  
Figure 2. Typical Forward Voltage



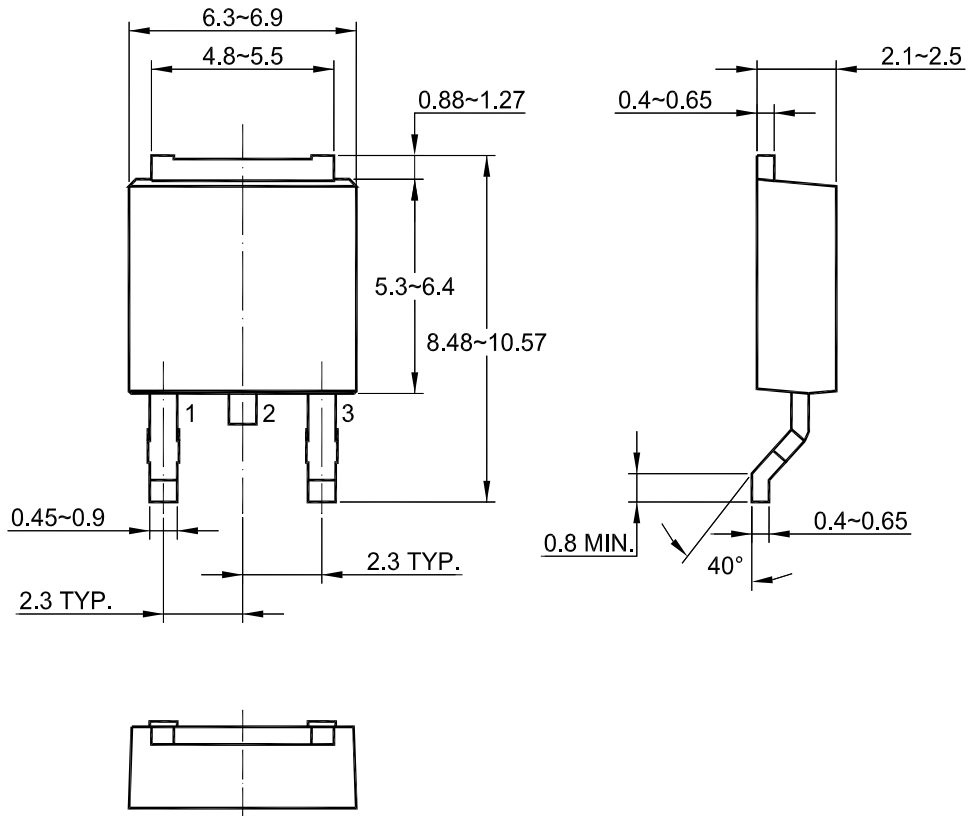
$V_R$ , Reverse Voltage (V)  
Figure 3. Typical Reverse Current



$T_c$ , Case Temp (°C)  
Figure 4. Current Derating, Case

# SDB10300R

## Package Outline Dimensions (Units: mm)



## Recommended Soldering Footprint

