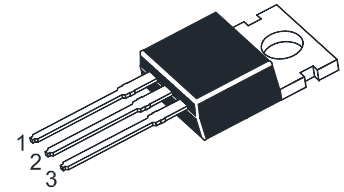
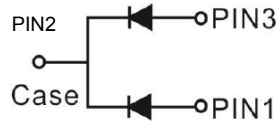


SDB10300CT

Surface Mount Schottky Barrier Rectifier

Features

- Low Forward Voltage Drop
- Reliable High Temperature Operation



TO-220 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 ¹⁾ 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 ¹⁾ at $V_R = 300 \text{ V}$ at $V_R = 300 \text{ V}$, $T_j = 125^\circ\text{C}$	I_R	100 10	μA mA

¹⁾ Pulse width < 300 μs , Duty cycle < 2%.

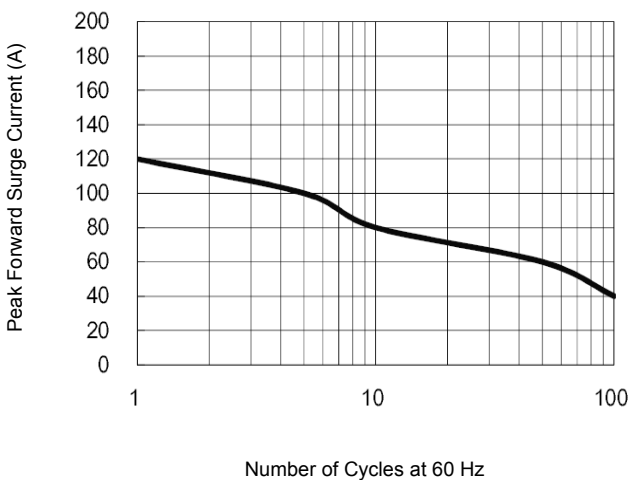


Figure 1. Maximum Repetitive Surge Current

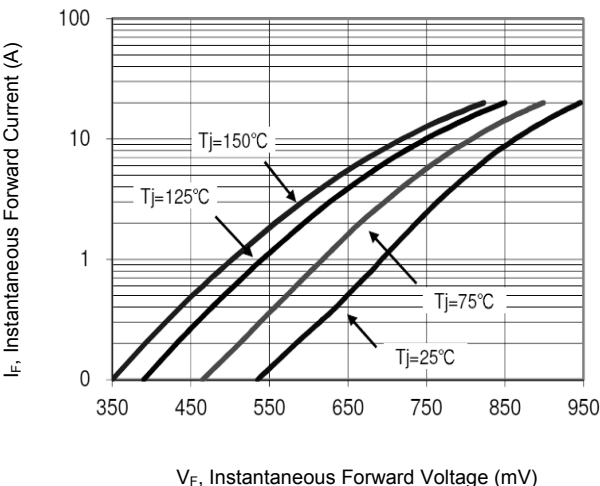


Figure 2. Typical Forward Voltage

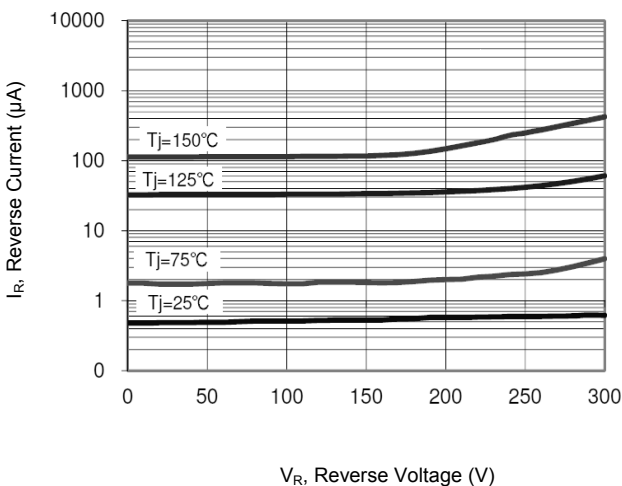


Figure 3. Typical Reverse Current

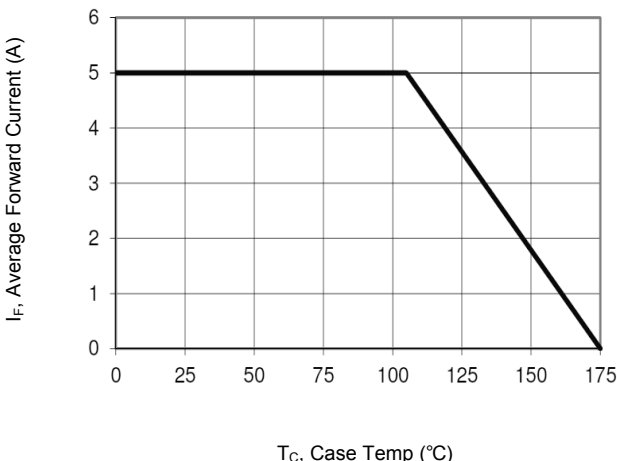
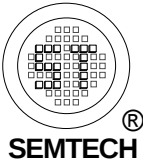


Figure 4. Current Derating, Case



Package Outline Dimensions (Units: mm)

