



30A 100V

Schottky Rectifier

Major ratings and characteristics

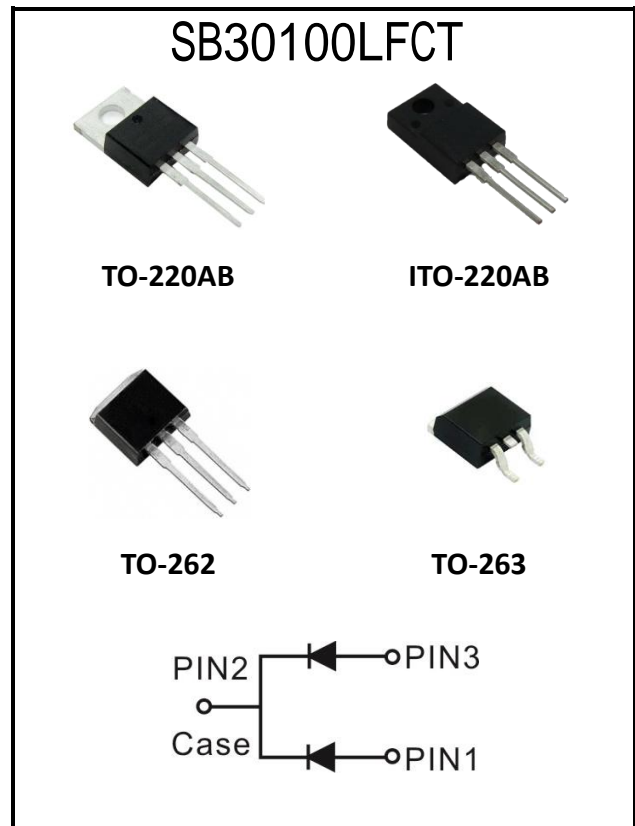
Characteristics	Values	Units
$I_{F(AV)}$ Rectangular Waveform	15 × 2	A
V_{RRM}	100	V
$V_F@ 15A, T_j=125^\circ C$	0.62	V, typ.
T_j Operating Junction Temperature	-40 to +150	$^\circ C$

Features

- Super Low Forward Voltage (SLVF[®]) Drop
- Reliable High Temperature Operation
- Softest, fast switching capability
- 150 $^\circ C$ Operating Junction Temperature
- Lead Free Finish, RoHS Compliant

Typical Applications

Device optimized for low forward voltage drop to maximize efficiency in Power Supply applications





1. Characteristics

Maximum Ratings Characteristics ($T_A = 25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Values	Units		
DC Blocking Voltage	V_{RM}	100	Volts		
Working Peak Reverse Voltage	V_{RWM}				
Peak Repetitive Reverse Voltage	V_{RRM}				
Average Rectified Forward Current Per device	I_o	30	Amps		
(Rated VR-20Khz Square Wave) - 50% duty cycle					
Peak Forward Surge Current - 1/2 60hz	I_{FSM}	200	Amps		
Peak Repetitive Reverse Surge Current (2uS-1Khz)	I_{RRM}	1	Amps		
Typical Thermal Resistance (per leg) Package = TO-220AB Package = ITO-220AB Package = TO-262 Package = TO-263	$R\theta_{JC}$	2 4 2.5 3	$^\circ\text{C} / \text{W}$		
Isolation voltage (ITO-220 only)		V_{AC}		1500	V
Maximum Rate of Voltage Change (at Rated V_R)		dv/dt		10000	V/uS
Operating Junction Temperature		T_J		- 40 to +150	$^\circ\text{C}$
Storage Junction Temperature	T_{STG}	- 40 to +150			

Electrical Characteristics - (per leg) ($T_A = 25^\circ\text{C}$ unless otherwise specified)

Parameter	Test Conditions		Symbol	Typ.	Max.	Units
Instantaneous Forward Voltage	IF = 5 A	$T_J = 25^\circ\text{C}$	V_F^*	0.49	-----	Volts
	IF = 15 A			0.67	0.78	
	IF = 5 A	$T_J = 125^\circ\text{C}$		0.43	-----	
	IF = 15 A			0.62	0.66	
Instantaneous Reverse Current	$V_R = 70\text{V}$	$T_J = 25^\circ\text{C}$	I_R^*	4.0	-----	μA
	$V_R = 100\text{V}$			8.0	200	μA
	$V_R = 70\text{V}$	$T_J = 125^\circ\text{C}$		5.0	-----	mA
	$V_R = 100\text{V}$			8.0	30	mA

* Pulse width < 300 uS, Duty cycle < 2%



2. Characteristics Curves

Ratings and Characteristics Curves

($T_A = 25^\circ\text{C}$ unless otherwise specified)

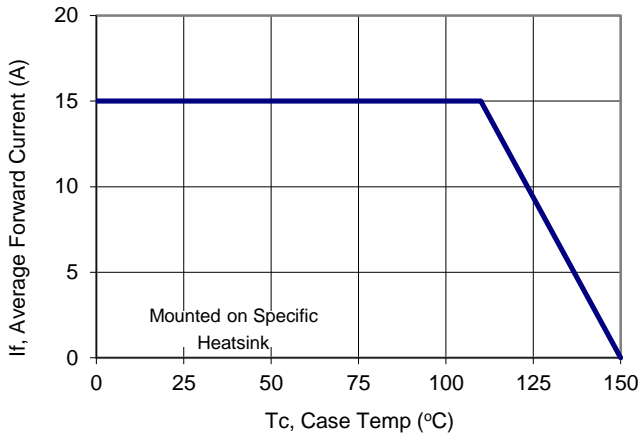


Figure 1: Current Derating, Case

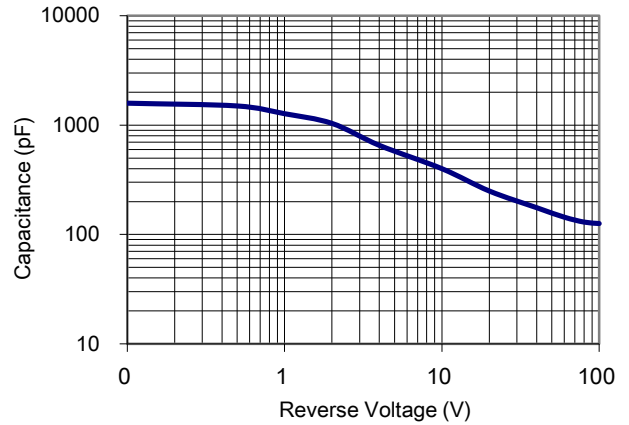


Figure 2: Typical Junction Capacitance

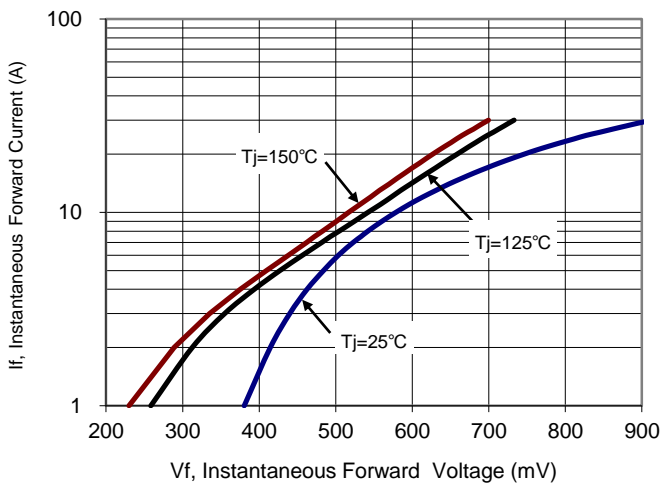


Figure 3: Typical Forward Voltage

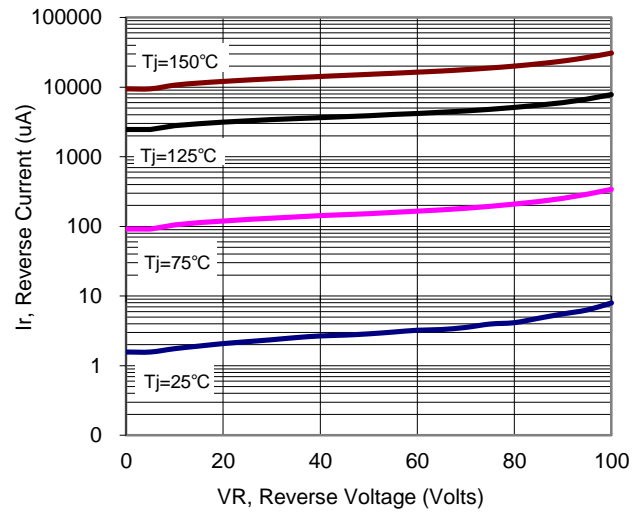


Figure 4: Typical Reverse Current