

SDS32BF THRU SDS320BF

Surface Mount Schottky Barrier Rectifier

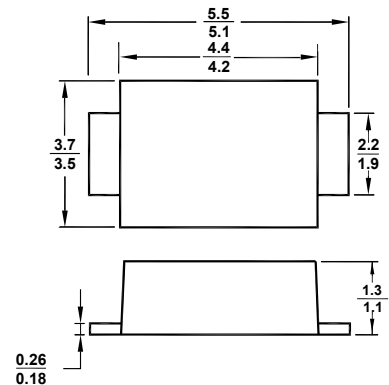
Reverse Voltage - 20 to 200 V

Forward Current - 3 A

Features

- Metal silicon junction, majority carrier conduction
- For surface mounted applications
- Low power loss, high efficiency
- High forward surge current capability
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications

SMBF



All Dimensions in mm

Maximum Ratings and Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified. Single phase half-wave 60 Hz, resistive or inductive load, for capacitive load current derate by 20%.

Parameter	Symbols	SDS32BF	SDS34BF	SDS36BF	SDS38BF	SDS310BF	SDS312BF	SDS315BF	SDS320BF	Unit	
	Marking	S32B	S34B	S36B	S38B	S310B	S312B	S315B	S320B	-	
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	20	40	60	80	100	120	150	200	V	
Maximum RMS Voltage	V_{RMS}	14	28	42	56	70	84	105	140	V	
Maximum DC Blocking Voltage	V_{DC}	20	40	60	80	100	120	150	200	V	
Maximum Average Forward Rectified Current	$I_{F(AV)}$	3								A	
Peak Forward Surge Current 8.3 ms Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	80				70				A	
Maximum Instantaneous Forward Voltage at 3 A	V_F	0.55		0.7		0.85		0.95		V	
Maximum DC Reverse Current at Rated DC Blocking Voltage	I_R	$T_a = 25^\circ\text{C}$ 0.5			$T_a = 100^\circ\text{C}$ 5			0.3 3		mA	
Typical Junction Capacitance ¹⁾	C_j	450			400				pF		
Typical Thermal Resistance ²⁾	$R_{\theta JA}$	50									°C/W
Operating Junction Temperature Range	T_j	- 55 to + 125									°C
Storage Temperature Range	T_{stg}	- 55 to + 150									°C

¹⁾ Measured at 1MHz and applied reverse voltage of 4 V D.C.

²⁾ P.C.B. mounted with 0.5 X 0.5" (12.7 X 12.7 mm) copper pad areas.

TOP DYNAMIC



ISO14001 : 2004 Certificate No. 121505007
 ISO 9001 : 2008 Certificate No. 50114012
 OHSAS 18001 : 2007 Certificate No. 05131508006
 IECQ QC 080000 Certificate No. IEQ-H000714802

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Fig.1 Forward Current Derating Curve

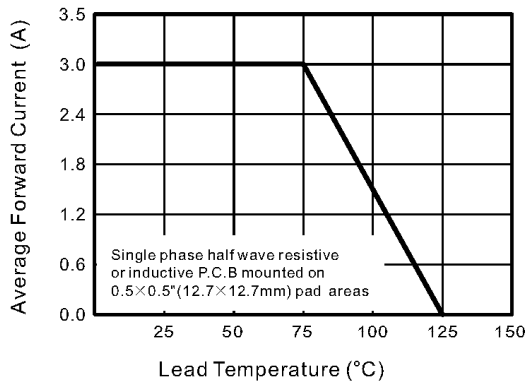


Fig.2 Typical Reverse Characteristics

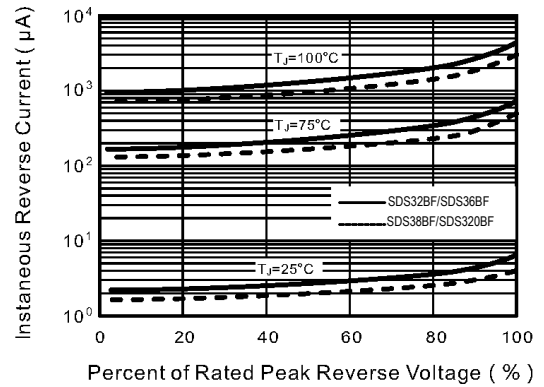


Fig.3 Typical Forward Characteristic

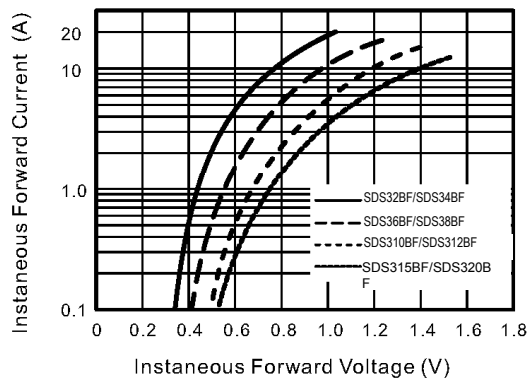


Fig.4 Typical Junction Capacitance

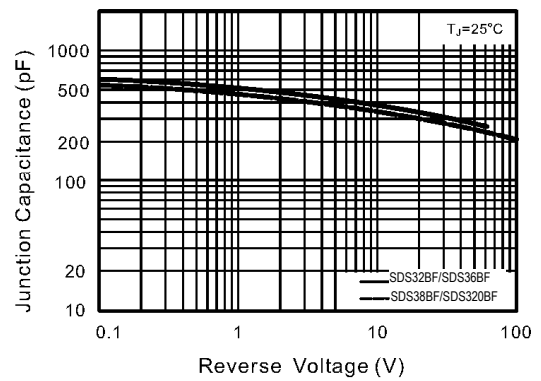


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

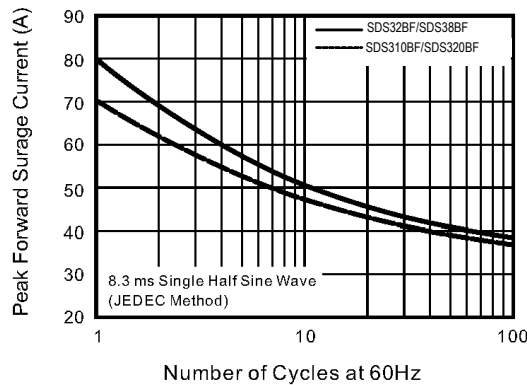
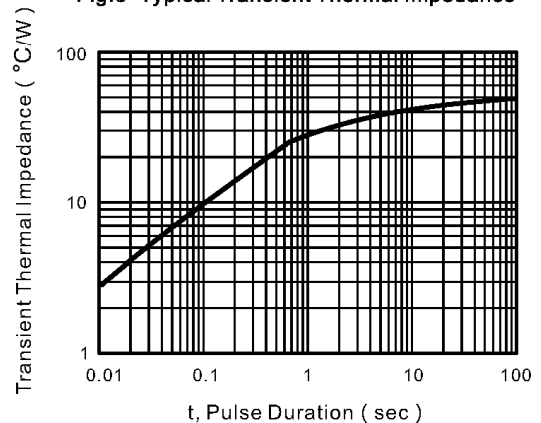


Fig.6- Typical Transient Thermal Impedance



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