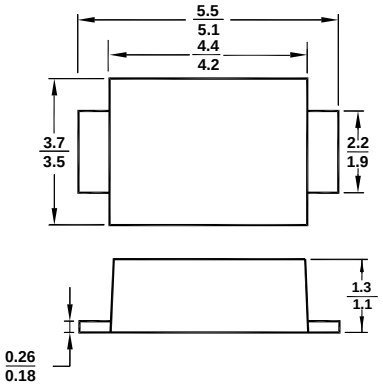
SDS22BF THRU SDS220BF-HAF

Surface Mount Schottky Barrier Rectifier

Reverse Voltage - 20 to 200 V
Forward Current - 2 A

SMBF



All Dimensions in mm

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
- Halogen and Antimony Free(HAF), RoHS compliant

Maximum Ratings and Electrical Characteristics

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

Parameter	Symbols	SDS22BF	SDS24BF	SDS26BF	SDS28BF	SDS210BF	SDS212BF	SDS215BF	SDS220BF	Unit
	Marking	S22B	S24B	S26B	S28B	S210B	S212B	S215B	S220B	-
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	$I_{F(AV)}$	2								A
Peak Forward Surge Current 8.3 ms Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	55				45				A
Maximum Instantaneous Forward Voltage at 2 A	V_F	0.55		0.7		0.85		0.95		V
Maximum DC Reverse Current at Rated DC Blocking Voltage T_a = 25℃	I_R	0.5			0.3					mA
T_a = 100℃		5			3					
Typical Junction Capacitance [1]	C_j	250			110					pF
Typical Thermal Resistance [2]	$R_{\theta JA}$	65								℃/W
Operating Junction Temperature Range	T_j	- 55 to + 125								℃
Storage Temperature Range	T_{stg}	- 55 to + 150								℃

[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.

Fig.1 Forward Current Derating Curve

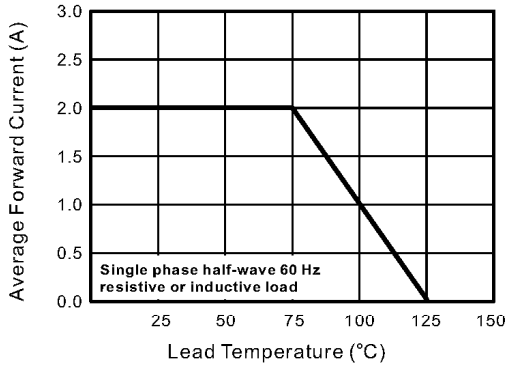


Fig.2 Typical Reverse Characteristics

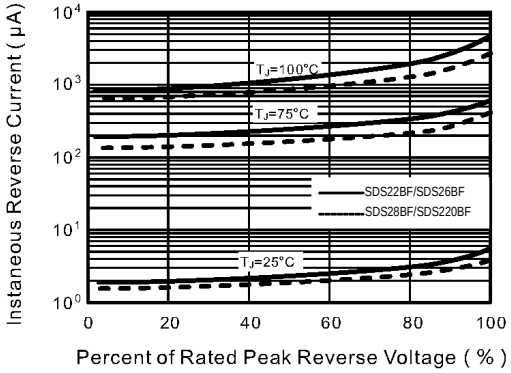


Fig.3 Typical Forward Characteristic

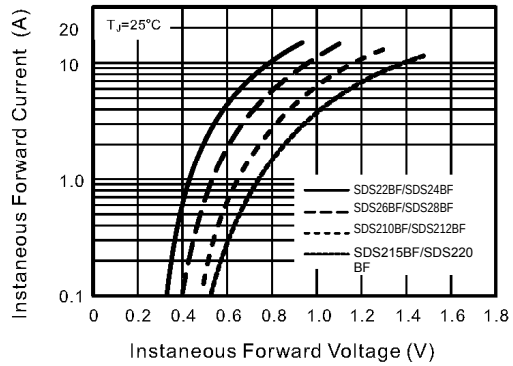


Fig.4 Typical Junction Capacitance

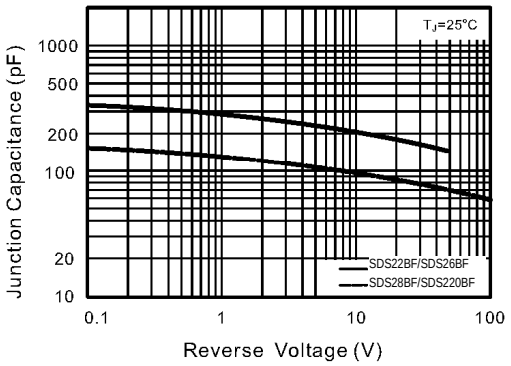


Fig.5 Maximum Non-Repetitive Peak Forward Surage Current

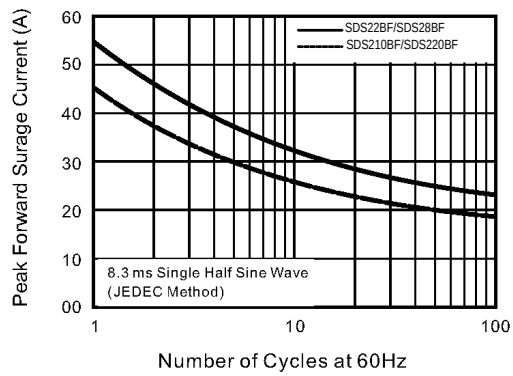


Fig.6- Typical Transient Thermal Impedance