

## 3 Ampere Surface Mount Schottky Barrier Rectifier



## SS32F-SS320F

## Features:

- Metal silicon junction, majority carrier conduction
- For surface mounted applications
- Low power loss, high efficiency
- Fast switching for high efficiency
- High forward surge current capability
- For use in low voltage, high frequency inverters

SMAF



## Absolute Maximum Ratings and Electrical characteristics

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

| Parameter  | Symbols                            | SS32F      | SS34F | SS345F | SS36F | SS38F    | SS310F | SS312F | SS315F | SS320F | Units            |                    |
|--|------------------------------------|------------|-------|--------|-------|----------|--------|--------|--------|--------|------------------|--------------------|
| Maximum Repetitive Peak Reverse Voltage  | $V_{RRM}$                          | 20         | 40    | 45     | 60    | 80       | 100    | 120    | 150    | 200    | V                |                    |
| Maximum RMS voltage  | $V_{RMS}$                          | 14         | 28    | 32     | 42    | 56       | 70     | 84     | 105    | 140    | V                |                    |
| Maximum DC Blocking Voltage  | $V_{DC}$                           | 20         | 40    | 45     | 60    | 80       | 100    | 120    | 150    | 200    | V                |                    |
| Maximum Average Forward Rectified Current  | $I_{F(AV)}$                        | 3.0        |       |        |       |          |        |        |        |        | A                |                    |
| Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)                  | $I_{FSM}$                          | 80         |       |        |       |          |        |        |        |        | A                |                    |
| Max Instantaneous Forward Voltage at 3A  | $V_F$                              | 0.55       |       |        | 0.70  | 0.85     |        |        | 0.95   |        | V                |                    |
| Maximum DC Reverse Current<br>at Rated DC Reverse Voltage<br>$T_a = 25^\circ\text{C}$<br>$T_a = 100^\circ\text{C}$ | $I_R$                              | 0.5<br>5   |       |        |       | 0.3<br>3 |        |        |        |        | mA               |                    |
| Typical Junction Capacitance <sup>(1)</sup>  | $C_j$                              | 250        |       |        | 180   |          |        |        |        |        | pF               |                    |
| Typical Thermal Resistance <sup>(2)</sup>  | $R_{\theta JA}$<br>$R_{\theta JC}$ | 70<br>18   |       |        |       |          |        |        |        |        |                  | $^\circ\text{C/W}$ |
| Operating Junction Temperature Range   | $T_j$                              | -55 ~ +125 |       |        |       |          |        |        |        |        | $^\circ\text{C}$ |                    |
| Storage Temperature Range  | $T_{stg}$                          | -55 ~ +150 |       |        |       |          |        |        |        |        | $^\circ\text{C}$ |                    |

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

( 2 ) P.C.B. mounted with 2.0" X 2.0" (5 X 5 cm) copper pad areas.

Typical Characteristics

Fig.1 Forward Current Derating Curve

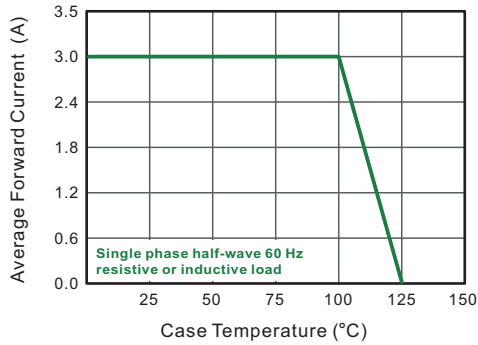


Fig.2 Typical Reverse Characteristics

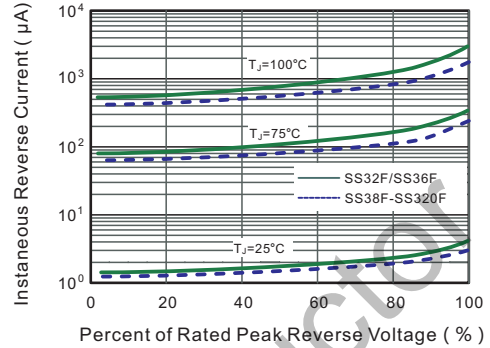


Fig.3 Typical Forward Characteristic

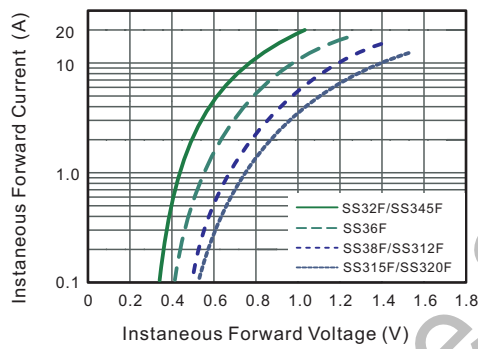


Fig.4 Typical Junction Capacitance

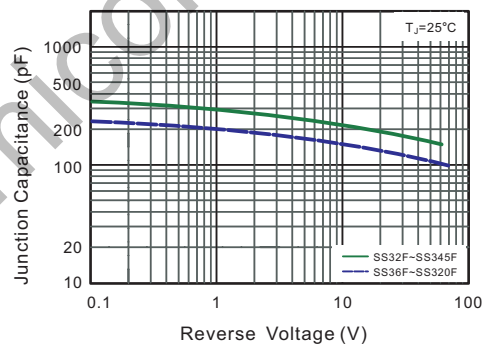


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

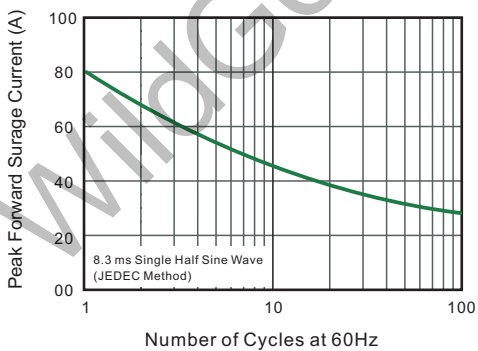
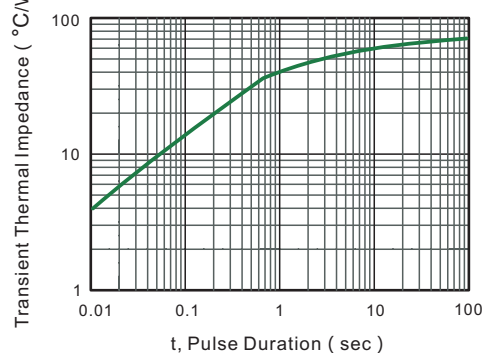
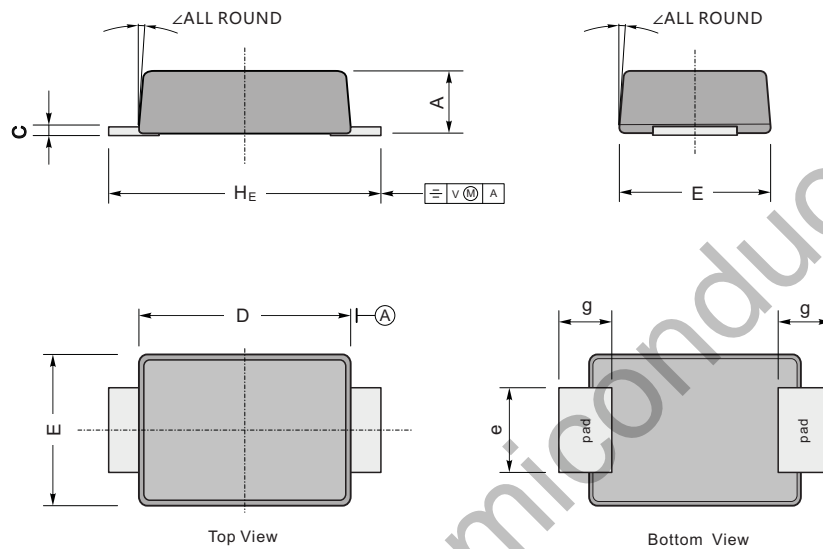


Fig.5- Typical Transient Thermal Impedance

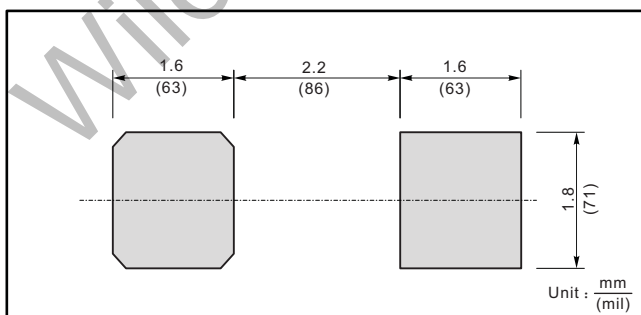


**Package Dimension****SMAF**

Unit: mm



| UNIT |     | A   | C    | D   | E   | e   | g   | H <sub>E</sub> | ∠  |
|------|-----|-----|------|-----|-----|-----|-----|----------------|----|
| mm   | max | 1.2 | 0.20 | 3.7 | 2.7 | 1.6 | 1.2 | 4.9            | 7° |
|      | min | 0.9 | 0.12 | 3.3 | 2.4 | 1.3 | 0.8 | 4.4            |    |
| mil  | max | 47  | 7.9  | 146 | 106 | 63  | 47  | 193            |    |
|      | min | 35  | 4.7  | 130 | 94  | 51  | 31  | 173            |    |

**The recommended mounting pad size****Marking**

| Type number | Marking code |
|-------------|--------------|
| SS32F       | SS32         |
| SS34F       | SS34         |
| SS345F      | SS345        |
| SS36F       | SS36         |
| SS38F       | SS38         |
| SS310F      | SS310        |
| SS312F      | SS312        |
| SS315F      | SS315        |
| SS320F      | SS320        |

## X-ON Electronics

Largest Supplier of Electrical and Electronic Components

*Click to view similar products for [Schottky Diodes & Rectifiers](#) category:*

*Click to view products by [Wild Goose](#) manufacturer:*

Other Similar products are found below :

[MA4E2039](#) [MMBD301M3T5G](#) [RB160M-50TR](#) [D83C](#) [BAS16E6433HTMA1](#) [BAS 3010S-02LRH E6327](#) [BAT 54-02LRH E6327](#)  
[NRVBAF360T3G](#) [NSR05F40QNXT5G](#) [NTE555](#) [JANS1N6640](#) [SS3003CH-TL-E](#) [GA01SHT18](#) [CRS10I30A\(TE85L,QM](#) [MBRA140TRPBF](#)  
[MBRB30H30CT-1G](#) [BAT 15-04R E6152](#) [JANTX1N5712-1](#) [DMJ3940-000](#) [SB007-03C-TB-E](#) [NRVBB20100CTT4G](#) [NRVBM120LT1G](#)  
[NTSB30U100CT-1G](#) [CRG04\(T5L,TEMQ\)](#) [ACDBA1100LR-HF](#) [ACDBA1200-HF](#) [ACDBA240-HF](#) [ACDBA3100-HF](#) [CDBQC0530L-HF](#)  
[ACDBA260LR-HF](#) [ACDBA1100-HF](#) [10BQ015-M3/5BT](#) [NRVBM120ET1G](#) [SDM8M100P5-13](#) [VSSB410S-M3/5BT](#) [1N5819T-G](#)  
[PDS1040Q-13](#) [B160BQ-13-F](#) [SDM05U20CSP-7](#) [BAS 70-07 E6433](#) [B140S1F-7](#) [HSM560Je3/TR13](#) [DDB2265-000](#) [ZHCS506QTA](#)  
[HSM190Je3/TR13](#) [B330AF-13](#) [ACDBUC0230-HF](#) [SDM1U100S1F-7](#) [MBR10200CTF-G1](#) [CDLL5712](#)