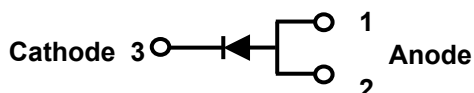
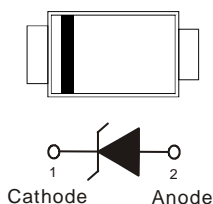


Trench MOS Barrier Schottky Rectifier

SMAF



Features

- Advanced trench technology
- Low forward voltage drop
- Low power losses
- High efficiency operation
- Lead Free Finish, RoHS Compliant

Applications

- DC/DC Converters
- AC/DC Adaptors

Maximum ratings and electrical characteristics (T_J = 25°C unless otherwise noted)

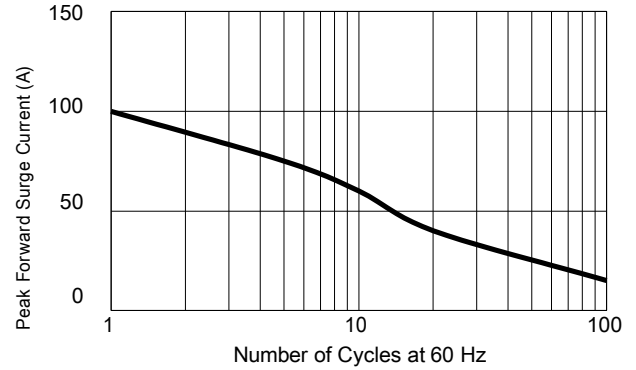
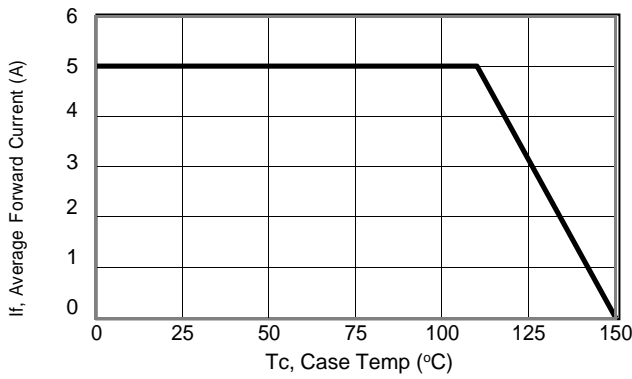
| Parameter | Symbol | Limit | Unit | | |
|----------------------------------------------------------------------------------------------|-----------------------------------|----------------------|------|------|----|
| Maximum repetitive peak reverse voltage | V _{RRM} | 100 | V | | |
| Maximum average forward rectified current | I _{F(AV)} | 5 | A | | |
| Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load per diode | I _{FSM} | 100 | A | | |
| Operating junction and storage temperature range | T _J , T _{STG} | -40 to +150 | °C | | |
| Typical thermal resistance per diode(Mounted on FR-4 PCB) | R _{θJA} | 150 | °C/W | | |
| Instantaneous forward voltage per diode | I _F =5A | T _J =25°C | TYP. | MAX. | V |
| | | | - | 0.78 | |
| | | | 0.65 | 0.69 | |
| Instantaneous reverse current per diode at rated reverse voltage | T _J =25°C | IR(2) | - | 200 | uA |
| | | | 5 | 15 | mA |

Notes:

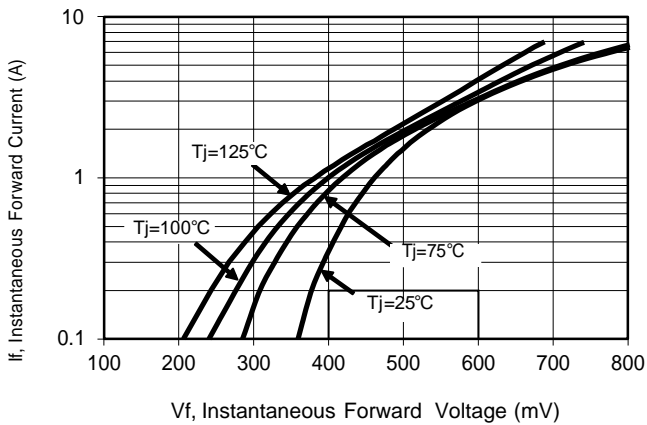
(1) Pulse test: 300 μs pulse width, 1 % duty cycle

(2) Pulse test: Pulse width ≤ 40 ms

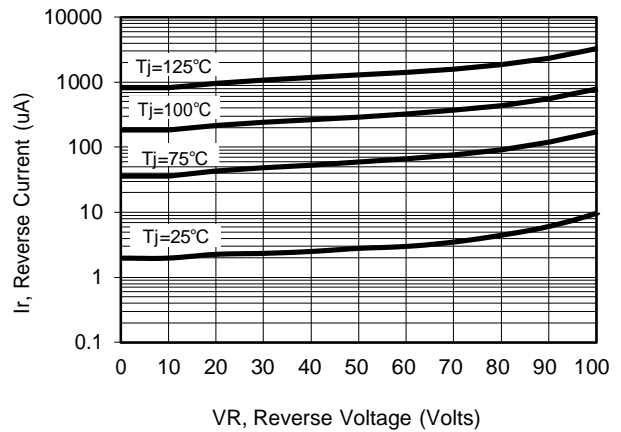
TYPICAL RATINGS AND CHARACTERISTICS CURVES (TA = 25 °C unless otherwise noted)



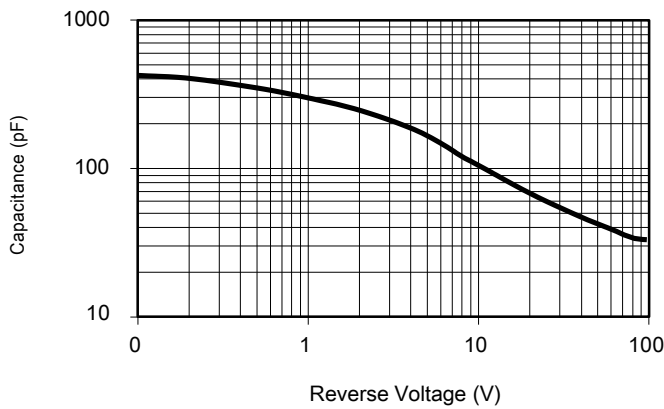
Current Derating, Case



Maximum Repetitive Surge Current



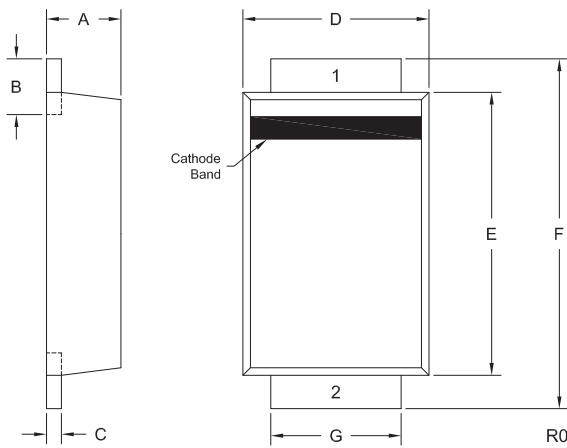
Typical Forward Voltage



Typical Reverse Current

Typical Junction Capacitance

PACKAGE OUTLINE



| SYMBOL | DIMENSIONS | | | |
|--------|------------|-------|-------------|------|
| | INCHES | | MILLIMETERS | |
| | MIN | MAX | MIN | MAX |
| A | 0.035 | 0.044 | 0.90 | 1.10 |
| B | 0.021 | 0.038 | 0.55 | 0.95 |
| C | 0.006 | 0.010 | 0.15 | 0.25 |
| D | 0.094 | 0.103 | 2.40 | 2.60 |
| E | 0.145 | 0.154 | 3.70 | 3.90 |
| F | 0.177 | 0.193 | 4.50 | 4.90 |
| G | 0.065 | 0.073 | 1.65 | 1.85 |

SMAFL (REV: R0)