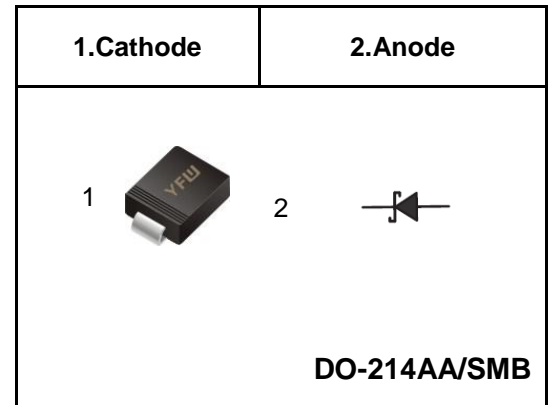


Trench Barrier Schottky Rectifier
Reverse Voltage - 150 V
Forward Current - 5 A
FEATURES

- ◆ 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
- ◆ Lead free in comply with EU RoHS 2011/65/EU directives


Pinning

MECHANICAL DATA

- ◆ Case: DO-214AA/SMB
- ◆ Terminals: Solderable per MIL-STD-750, Method 2026

Maximum Ratings (Per Leg) at Ta=25°C unless otherwise specified

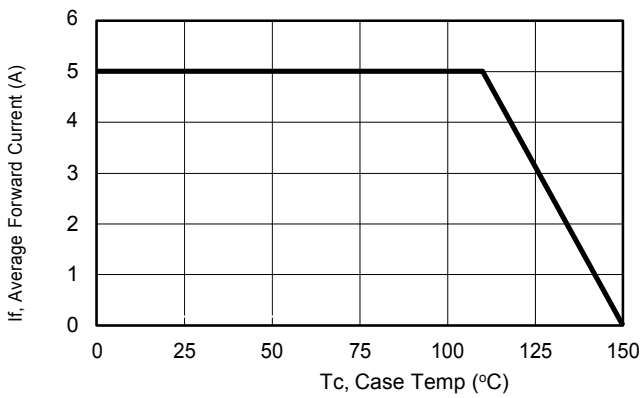
| Parameter | Symbols | 5S150 | Units |
|---|-----------------|------------|-------|
| Maximum Repetitive Peak Reverse Voltage | V_{RRM} | 150 | V |
| Maximum Average Forward Rectified Current | $I_{F(AV)}$ | 5 | A |
| Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed On Rated Load (JEDEC method) | I_{FSM} | 120 | A |
| Typical Thermal Resistance per diode (Mounted on FR-4 PCB) | $R_{\theta JC}$ | 22 | °C/W |
| Operating junction and storage temperature range | T_j, T_{stg} | -40 ~ +150 | °C |

Electrical Characteristics (Per Leg) unless otherwise specified

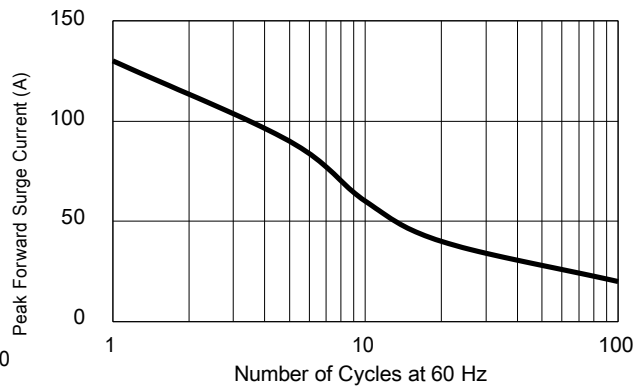
| Characteristics | | Symbols | Value | | Units | | |
|--|----------|---------|-------|------|-------|----|----|
| | | | Typ | Max | | | |
| Forward Voltage Drop | TA=25°C | V_F | 0.53 | 0.60 | V | | |
| | TA=125°C | | | | | - | |
| at $I_F=1A$ Instantaneous forward voltage per diode | TA=25°C | | I_R | 5 | | 10 | uA |
| | TA=125°C | | | | | | mA |
| at $I_F=5A$ Instantaneous forward voltage per diode | TA=25°C | - | - | 5 | | | |
| | TA=125°C | | | | | | |
| Instantaneous reverse current per diode at rated reverse voltage | TA=25°C | | | | | | |
| | TA=125°C | | | | | | |

Notes:
 (1) Pulse test: 300 μ s pulse width, 1 % duty cycle
 (2) Pulse test: Pulse width \leq 40 ms

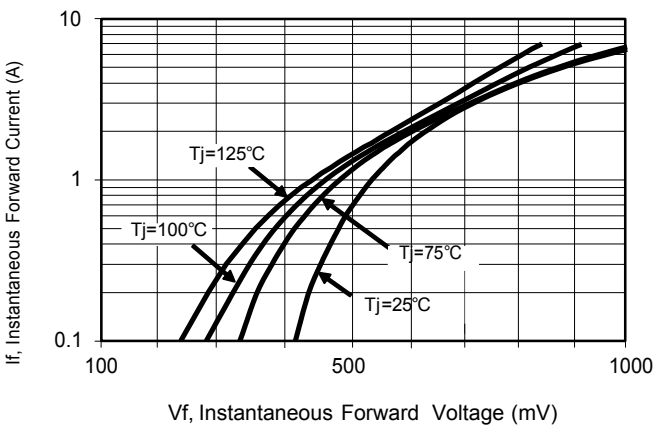
RATINGS AND CHARACTERISTICS CURVES



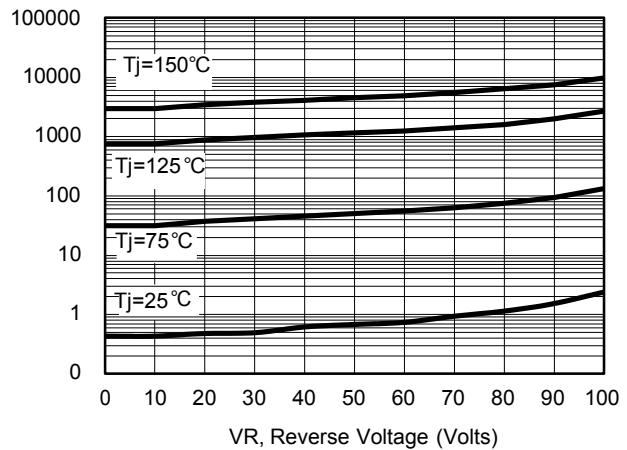
Current Derating, Case



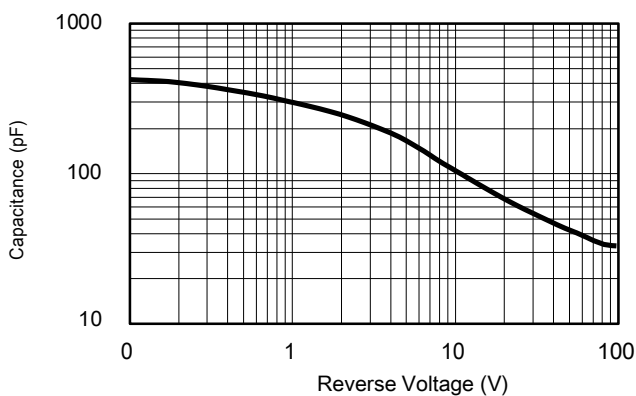
Maximum Repetitive Surge Current



Typical Forward Voltage



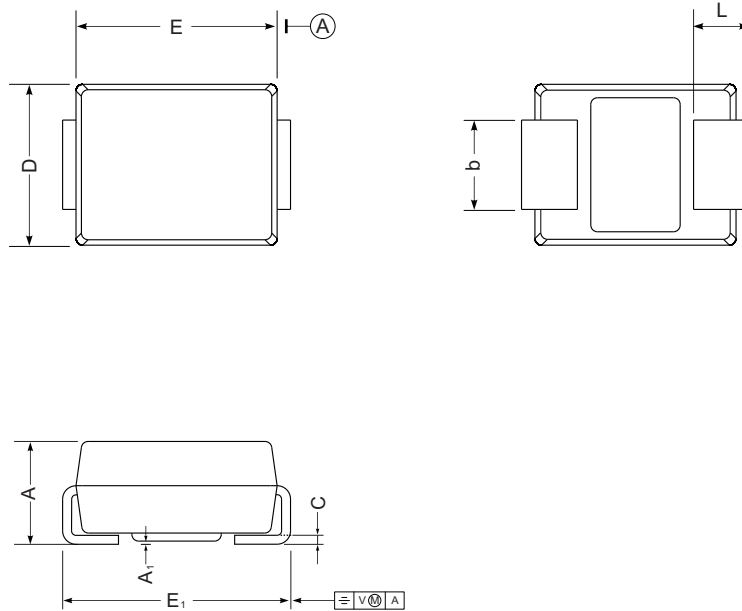
Typical Reverse Current



Typical Junction Capacitance

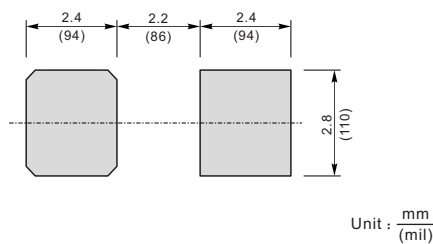
Package Outline DO-214AA SMB

Plastic surface mounted package; 2 leads



| UNIT | | A | E | D | E ₁ | A ₁ | L | C | b |
|------|-----|------|------|------|----------------|----------------|-----|-------|-----|
| mm | max | 2.44 | 4.70 | 3.94 | 5.59 | 0.20 | 1.5 | 0.305 | 2.2 |
| | min | 2.13 | 4.06 | 3.3 | 5.08 | 0.05 | 0.8 | 0.152 | 1.9 |
| mil | max | 96 | 185 | 155 | 220 | 7.9 | 59 | 12 | 87 |
| | min | 84 | 160 | 130 | 200 | 2.0 | 32 | 6 | 75 |

The recommended mounting pad size



Summary of Packing Options

| Package | Packing Description | Packing Quantity | Industry Standard |
|--------------|---------------------|------------------|-------------------|
| DO-214AA SMB | Tape/Reel, 13" reel | 3000 | EIA-481-1 |

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