

TECHNICAL DATA
DATASHEET 4215, REV-

SILICON ULTRA-FAST RECOVERY EPITAXIAL RECTIFIER DIE

Applications:

- Switching Power Supply • Converters • Free-Wheeling Diodes • Polarity Protection Diode

Features:

- Glass Passivated Epitaxial Diode with Mesa Structure
- Soft Reverse Recovery at Low and High Temperature
- Low Forward Voltage Drop and Low Reverse Current
- Electrically and Mechanically Stable during and after Packaging

Maximum Ratings:

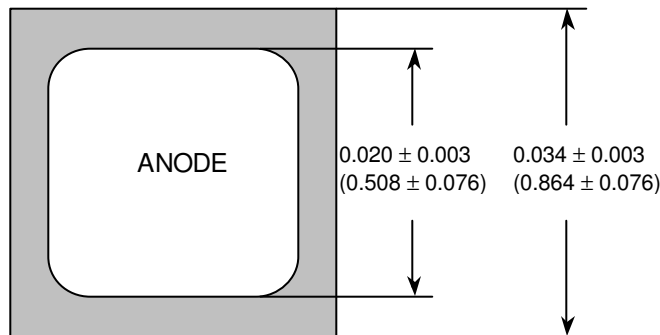
| Characteristics | Symbol | Condition | Max. | Units |
|--|-----------|---|-------------|------------------|
| Peak Inverse Voltage | V_{RWM} | - | 200 | V |
| Max. Output Current | I_O | 50% duty cycle, rectangular wave form; $T_A = 55^\circ\text{C}$ | 1.2 | A |
| Max. Peak One Cycle Non-Repetitive Surge Current | I_{FSM} | 8.3 ms, sine pulse ⁽¹⁾ | 20 | A |
| Max. Junction Temperature | T_J | - | -55 to +175 | $^\circ\text{C}$ |
| Max. Storage Temperature | T_{stg} | - | -55 to +200 | $^\circ\text{C}$ |
| Reverse Recovery Time | t_{rr} | $I_F=0.5A, I_R=1.0A, I_{RM}=0.25A$ | 30 | nS |

Electrical Characteristics:

| Characteristics | Symbol | Condition | Max. | Units |
|---------------------------|----------|--|------|---------------|
| Max. Forward Voltage Drop | V_{F1} | 2A, pulse, $T_J = 25^\circ\text{C}$ | 1.6 | V |
| | V_{F2} | 1.2A, pulse, $T_J = 25^\circ\text{C}$ | 1.4 | V |
| Max. Reverse Current | I_{R1} | $V_R = V_{RWM}$, pulse, $T_J = 25^\circ\text{C}$ | 0.5 | μA |
| | I_{R2} | $V_R = V_{RWM}$, pulse, $T_J = 150^\circ\text{C}$ | 150 | μA |
| Max. Junction Capacitance | C_T | $V_R = 10V, T_C = 25^\circ\text{C}$ $f_{SIG} = 0.1$ to 1MHz, $V_{SIG} = 50\text{mV}$ (p-p) | 10 | pF |

⁽¹⁾ in TO package

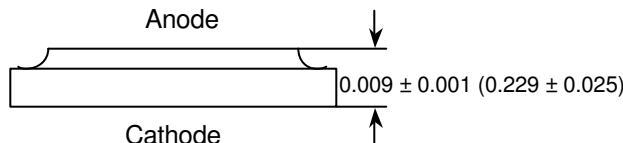
Mechanical Dimensions: In Inches (mm)



Bottom side metalization: Ti/Ni/Ag - 30 kÅ minimum.

Top side metalization: Al - 25 kÅ minimum

Bottom side is cathode, top side is anode.



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