

TECHNICAL DATA  
DATASHEET 4216, REV-

**SILICON ULTRA-FAST RECOVERY EPITAXIAL RECTIFIER DIE**

**Applications:**

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

**Features:**

- Glasspassivated 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:**

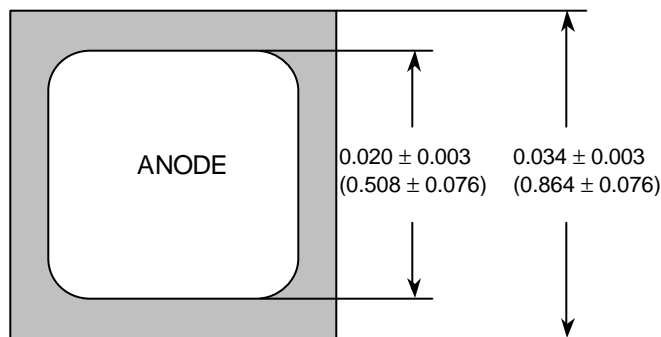
Characteristics	Symbol	Condition	Max.	Units
Peak Inverse Voltage	$V_{RWM}$	-	400	V
Max. Output Current	$I_O$	50% duty cycle, rectangular wave form; $T_A = 55^\circ\text{C}$	1.2	A
Max. Peak One Cycle Non-Repetitive Surge Current	$I_{FSM}$	8.3 ms, sine pulse <sup>(1)</sup>	20	A
Max. Junction Temperature	$T_J$	-	-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	$\mu\text{A}$
	$I_{R2}$	$V_R = V_{RWM}$ , pulse, $T_J = 150^\circ\text{C}$	150	$\mu\text{A}$
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

<sup>(1)</sup> in TO package

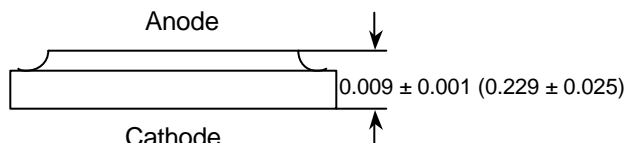
**Mechanical Dimensions: In Inches (mm)**



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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