

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:

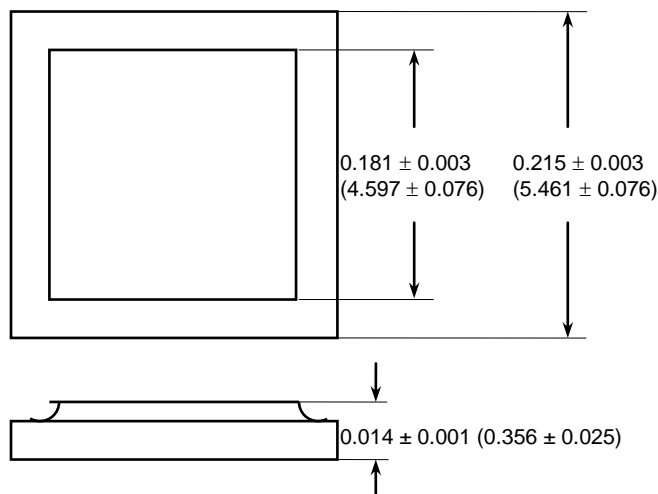
Characteristics	Symbol	Condition	Max.	Units
Peak Inverse Voltage	V_{RWM}	-	600	V
Max. Output Current	I_O	50% duty cycle, rectangular wave form; $T_A = 75^\circ\text{C}$	70	A
Max. Peak One Cycle Non-Repetitive Surge Current	I_{FSM}	8.3 ms, sine pulse ⁽¹⁾	500	A
Max. Junction Temperature	T_J	-	-55 to +175	$^\circ\text{C}$
Max. Storage Temperature	T_{stg}	-	-55 to +200	$^\circ\text{C}$
Reverse Recovery Time	t_{rr}	$I_F=0.5\text{A}, I_R=1.0\text{A}, I_{RM}=0.25\text{A}$	75	nS

Electrical Characteristics:

Characteristics	Symbol	Condition	Max.	Units
Max. Forward Voltage Drop	V_{F2}	70A, pulse, $T_J = 25^\circ\text{C}$	1.30	V
Max. Reverse Current	I_{R1}	$V_R = V_{RWM}$, pulse, $T_J = 25^\circ\text{C}$	25	μA
	I_{R2}	$V_R = V_{RWM}$, pulse, $T_J = 125^\circ\text{C}$	2000	μA

⁽¹⁾ in TO package

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.

TECHNICAL DATA SHEET
DATA SHEET 5302, REV -

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