

TECHNICAL DATA
DATA SHEET D0050, Rev. -

SILICON ULTRA FAST RECTIFIER DIE

Applications:

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

Features:

- Ultra low Reverse Leakage Current
- Soft Reverse Recovery at Low and High Temperature
- Very Low Forward Voltage Drop
- Low Power Loss, High Efficiency
- High Surge Capacity
- Guard Ring for Enhanced Durability and Long Term Reliability
- Guaranteed Reverse Avalanche Characteristics
- Electrically / Mechanically Stable during and after Packaging

Maximum Ratings:

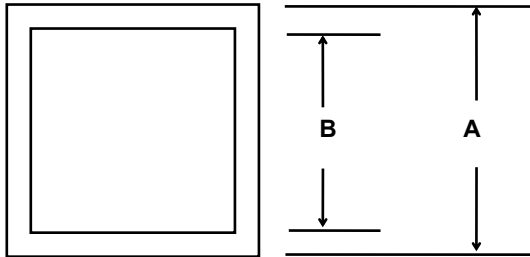
Characteristics	Symbol	Condition	Max.	Units
Peak Reverse Voltage	V_{RM}	-	200	V
Average Forward Current	$I_{F(AV)}$	50% duty cycle @ $T_C = 100^\circ\text{C}$, rectangular wave form	90	A
Peak One Cycle Non-Repetitive Surge Current	I_{FSM}	8.3 ms, Sine pulse	750	A
Junction Temperature	T_J	-	150	$^\circ\text{C}$
Storage Temperature	T_{stg}	-	-65 to +150	$^\circ\text{C}$

Electrical Characteristics:

Characteristics	Symbol	Condition	Max.	Units
Forward Voltage Drop*	V_{F1}	@ 90A, Pulse, $T_J = 25^\circ\text{C}$	1.0	V
Reverse Current	I_{R1}	@ $V_R = 200\text{V}$, Pulse, $T_J = 25^\circ\text{C}$	60	μA
Reverse Recovery Time	T_{rr}	$I_F=0.5\text{A}$; $I_R=1.0\text{A}$; $I_{RR}=0.25\text{A}$	70	ns

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Mechanical Dimensions: In Inches (mm)

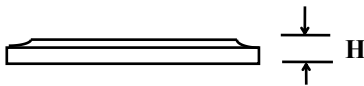


Bottom side: Ni - 1000 nm ± 10% Ag - 200nm ± 10%

Top side: Al - 5µm ± 10%

Bottom side is cathode, top side is anode

Dimension H = 0.009 ± 0.001 (0.23 ± 0.026) (It can be customized according to customer requirements)



A	B
0.273 ± 0.002 (6.93 ± 0.05)	0.264 ± 0.002 (6.71 ± 0.05)

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