

TECHNICAL DATA SHEET
DATASHEET 6187, 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

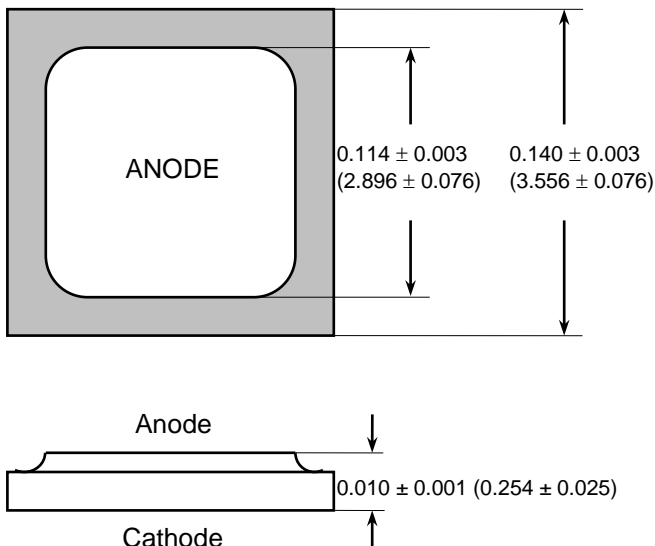
Maximum Ratings:

Characteristics	Symbol	Condition	Max.	Units
Peak Inverse Voltage	V_{RWM}	-	300	V
Max. Output Current	I_O	50% duty cycle, rectangular wave form; $T_A = 25\text{ }^\circ\text{C}$	25	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 SD140UF300x35 SD140UF300x33	t_{rr}	$I_F=0.5\text{A}, I_R=1.0\text{A}, I_{RM}=0.25\text{A}$	35 33	ns

Electrical Characteristics:

Characteristics	Symbol	Condition	Max.	Units
Max. Forward Voltage Drop	V_F	25A, pulse, $T_J = 25\text{ }^\circ\text{C}$	1.2	V
Max. Reverse Current	I_{R1}	$V_R = V_{RWM}$, pulse, $T_J = 25\text{ }^\circ\text{C}$	5.0	μA
	I_{R2}	$V_R = V_{RWM}$, pulse, $T_J = 125\text{ }^\circ\text{C}$	1	mA

Mechanical Dimensions: In Inches (mm)



Bottom side metalization: Ti/Ni/Ag - 30 kÅ nominal

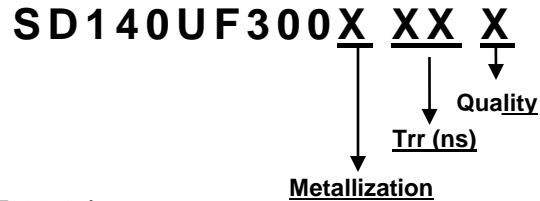
Top side metalization: Al - 25 kÅ minimum

Bottom side is cathode, top side is anode.

SENSITRON
SEMICONDUCTOR

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PART ORDERING INFORMATION:



Metallization (Example using SD140UF300x35):

Suffix	Part Number	Description
A	SD140UF300A35	Al top, Ag bottom
B	SD140UF300B35	Ag top, Ag bottom

Metallization (Example using SD140UF300x35):

Suffix	Part Number	Description
H	SD140UF300A35H	Class H Element Eval
K	SD140UF300A35K	Class K Element Eval

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