TECHNICAL DATA
DATASHEET 4298, 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:

All ratings are at $T_A = 25^oC$ unless otherwise specified

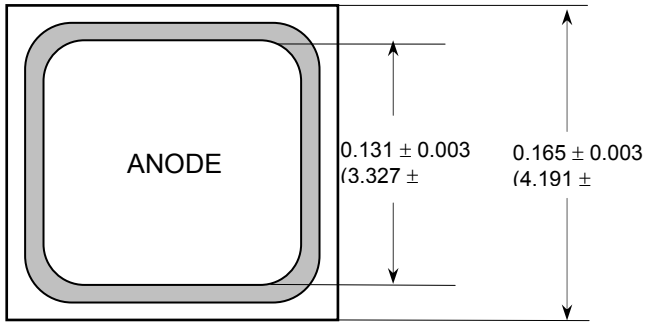
Characteristics	Symbol	Condition	Max.	Units
Peak Inverse Voltage	V_{RWM}	-	600	V
Max. Output Current	I_O	50% duty cycle, rectangular wave form; $T_A = 25^oC$	30	A
Non-repetitive Peak Forward Current	I_{FSM}[1]	t = 8.3 ms, sine waveform; $T_A = 25^oC$	200	A
Max. Junction Temperature	T_J	-	-65 to +175	°C
Max. Storage Temperature	T_{stg}	-	-65 to +175	°C
Reverse Recovery Time	t_{rr}	I_F=0.5A, I_R=1.0A, I_{RM}=0.25A	30	nS

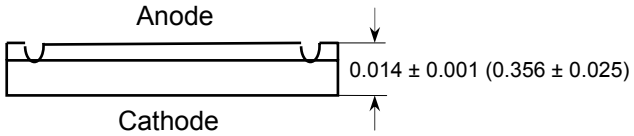
Electrical Characteristics:

Characteristics	Symbol	Condition	Max.	Units
Max. Forward Voltage Drop	V_F	30A, pulse, T_J = 25 °C	2.6	V
Max. Reverse Current	I_{R1}	$V_R = V_{RWM}$, pulse[2], T_J = 25°C	50.0	μA
	I_{R2}	$V_R = V_{RWM}$, pulse[2], T_J = 150°C	500	μA

[1] in TO package
[2] Pulse test: t_p = 300 μs, duty cycle ≤ 2.0%

Mechanical Dimensions: In Inches (mm)





Part number call out:
SD165UF600A30 for Al top – 25 kÅ minimum
SD165UF600B30 for Ti/Ni/Ag top – 30 kÅ minimum

Bottom side metallization: Ti/Ni/Ag – 30 kÅ minimum

Top – Anode, Bottom - Cathode

SENSITRON

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