TECHNICAL DATA
DATA SHEET 400, REV. -

Ultra Fast T_{rr} < 12 nsec

ULTRA LOW REVERSE LEAKAGE POWER SCHOTTKY RECTIFIER

Very Low Forward Voltage Drop

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**
- **Out Performs 200 Volt Ultra fast Rectifiers**

Maximum Ratings:

Characteristics	Symbol	Condition	Max.	Units
Peak Inverse Voltage	V_{RWM}	-	200	V
Max. Average Forward Current	$I_{F(AV)}$	50% duty cycle @T_C =100°C, rectangular wave form	15	A
Max. Peak One Cycle Non-Repetitive Surge Current (per leg)	I_{FSM}	8.3 ms, half Sine pulse	140	A
Non-Repetitive Avalanche Energy (per leg)	E_{AS}	T_J = 25 °C, I_{AS} = 0.4 A, L = 40 mH	7.7	mJ
Repetitive Avalanche Current (per leg)	I_{AR}	I_{AS} decay linearly to 0 in 1 µs f limited by T_J max V_A=1.5V_R	0.4	A
Max. Junction Temperature	T_J	-	-65 to +200	°C
Max. Storage Temperature	T_{stg}	-	-65 to +175	°C

Electrical Characteristics:

Characteristics	Symbol	Condition	Max.	Units
Max. Forward Voltage Drop (per leg)	V_{F1}	@ 15A, Pulse, T_J = 25 °C	1.0	V
	V_{F2}	@ 15A, Pulse, T_J = 125 °C	0.84	V
Max. Reverse Current (per leg)	I_{R1}	@V_R = 200V, Pulse, T_J = 25 °C	0.008	mA
	I_{R2}	@V_R = 200V, Pulse, T_J = 125 °C	0.5	mA
Max. Junction Capacitance (per leg)	C_T	@V_R = 5V, T_C = 25 °C f_{SIG} = 1MHz, V_{SIG} = 50mV (p-p)	150	pF
Maximum Thermal Resis. (per leg)	$R_{\theta JC}$	-	3.0	°C/W
Max. Reverse Recovery Time (per leg)	**t_{rr}**	**I_F = 0.5 A, I_R = 1.0 A, I_{RM} = 0.25 A, T_J = 25 °C**	**12**	**nsec**

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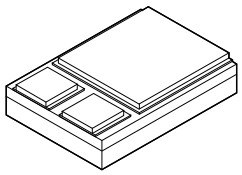
Mechanical Dimensions: In Inches / mm



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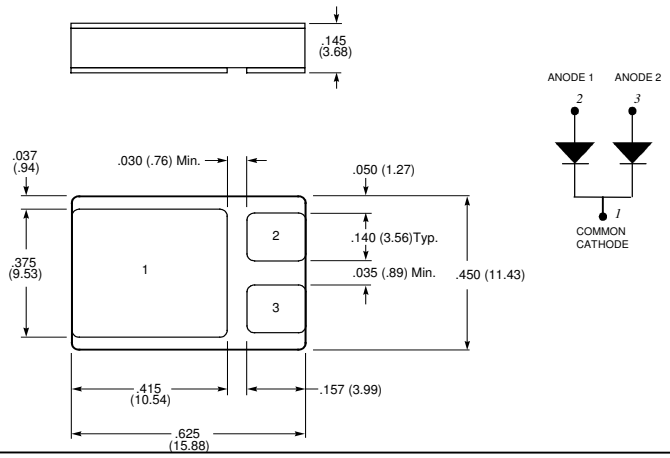
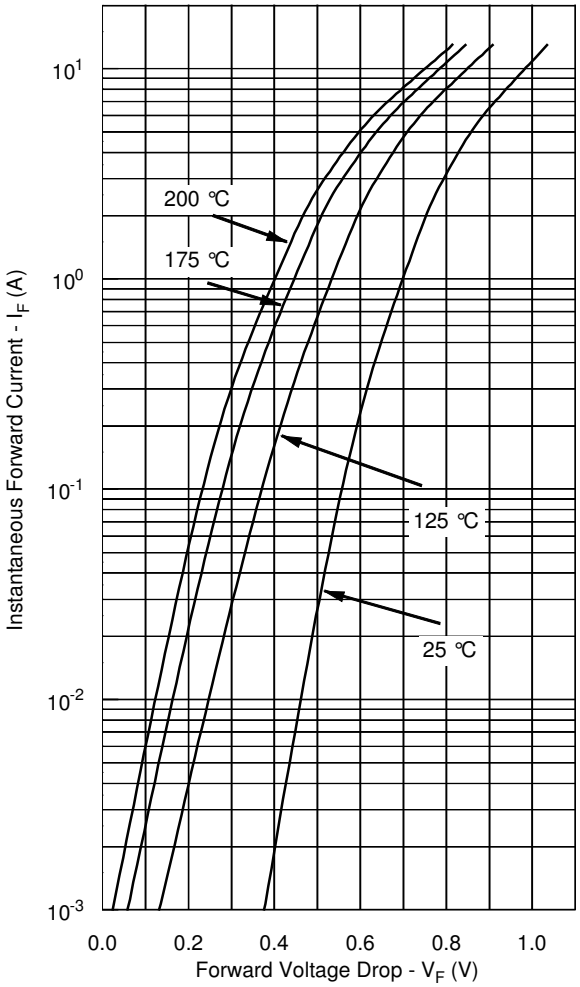
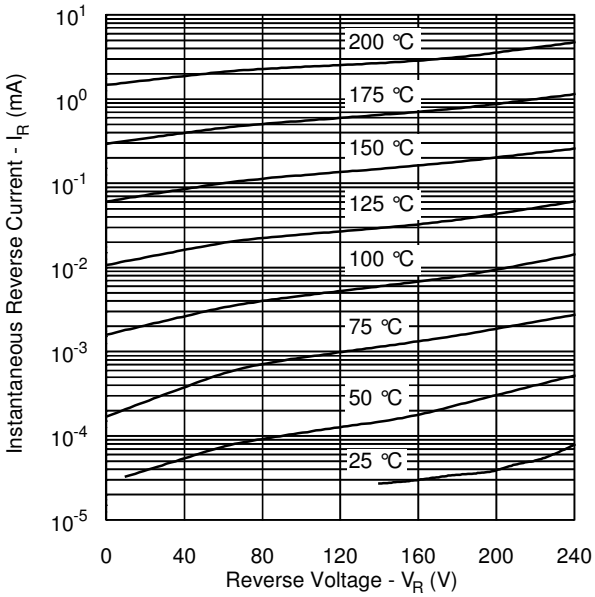


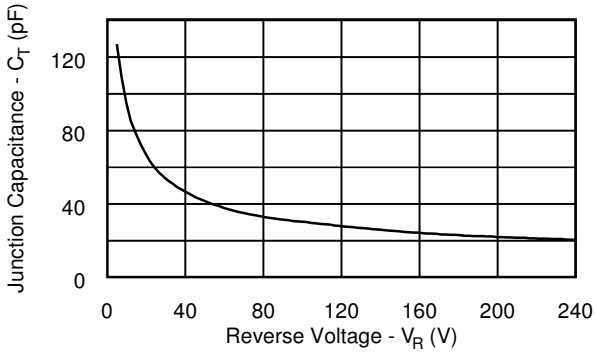
Typical Forward Characteristics



Typical Reverse Characteristics



Typical Junction Capacitance



• 221 West Industry Court • Deer Park, NY 11729-4681 • (516) 586-7600 FAX (516) 242-9798 •
• World Wide Web Site - http://www.sensitron.com • E-Mail Address - sales@sensitron.com •

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