TECHNICAL DATA
DATA SHEET 413, REV. PRELIMINARY

SCHOTTKY RECTIFIER
Ultra Low Reverse Leakage
200°C Operating Temperature

Add Suffix "S" to Part Number for S-100 Screening.

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**

Maximum Ratings:

Characteristics	Symbol	Condition	Max.	Units
Peak Inverse Voltage	V_{RWM}	-	100	V
Max. Average Forward Current	$I_{F(AV)}$	50% duty cycle, rectangular wave form	6.0	A
Max. Peak One Cycle Non-Repetitive Surge Current (per leg)	I_{FSM}	8.3 ms, half Sine wave	55	A
Non-Repetitive Avalanche Energy (per leg)	E_{AS}	T_J = 25 °C, I_{AS} = 0.23A, L = 130 mH	3.5	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	0.23	A
Maximum Thermal Resistance (Junction to Mounting Surface)	$R_{\theta JC}$	Common Cathode	1.8	°C/W
Maximum Thermal Resistance (Junction to Mounting Surface)	$R_{\theta JC}$	Common Anode	4.2	°C/W
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}	@ 3A, Pulse, T_J = 25 °C	0.84	V
	V_{F2}	@ 3A, Pulse, T_J = 125 °C	0.68	V
Max. Reverse Current (per leg)	I_{R1}	@V_R = 100V, Pulse, T_J = 25 °C	5.0	µA
	I_{R2}	@V_R = 100V, Pulse, T_J = 125 °C	0.25	mA
Max. Junction Capacitance (per leg)	C_T	@V_R = 5V, T_C = 25 °C f_{SIG} = 1MHz, V_{SIG} = 50mV (p-p)	100	pF

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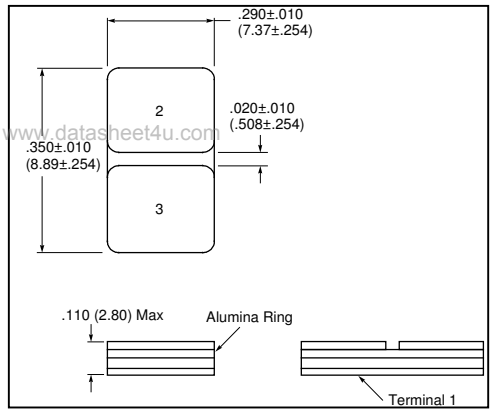
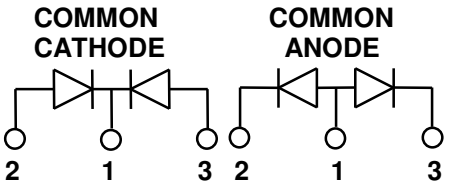
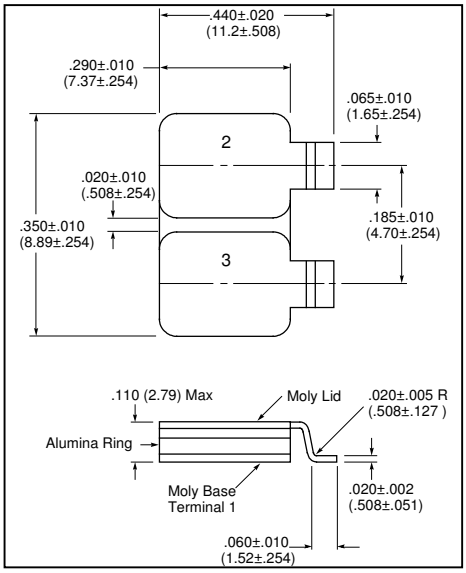
Mechanical Dimensions: In Inches / mm



SHD-4





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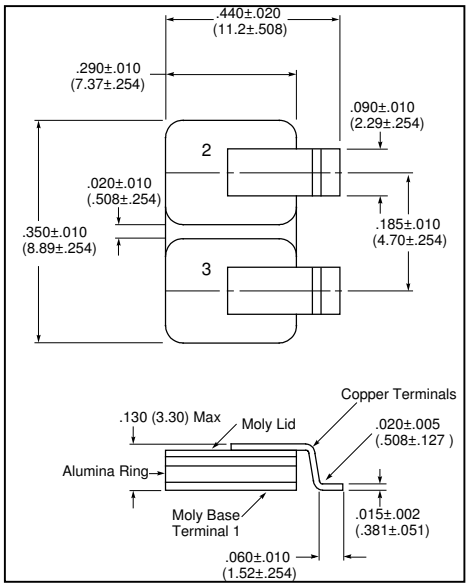
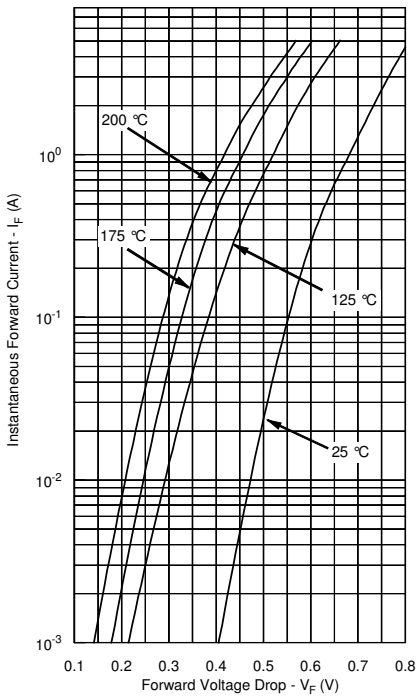


SHD-4B

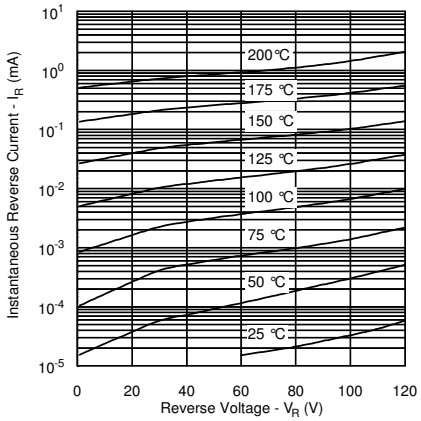
PINOUT TABLE

DEVICE TYPE	PIN 1	PIN 2	PIN 3
DUAL RECTIFIER, COMMON CATHODE (P)	COMMON CATHODE	ANODE 1	ANODE 2
DUAL RECTIFIER, COMMON ANODE (N)	COMMON ANODE	CATHODE 1	CATHODE 2

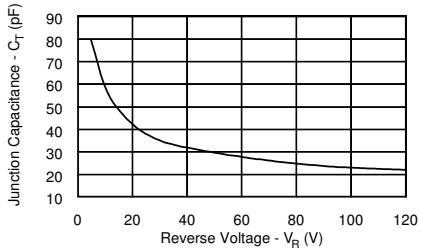
Typical Forward Characteristics



Typical Reverse Characteristics



Typical Junction Capacitance



TECHNICAL DATA

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