

**SEMICONDUCTOR**TECHNICAL DATA  
DATASHEET 471, REV. -**HERMETIC SCHOTTKY RECTIFIER  
Very Low Forward Voltage Drop  
(2A, 45V, SHD-23 Package)****Applications:**

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

**Features:**

- 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:**

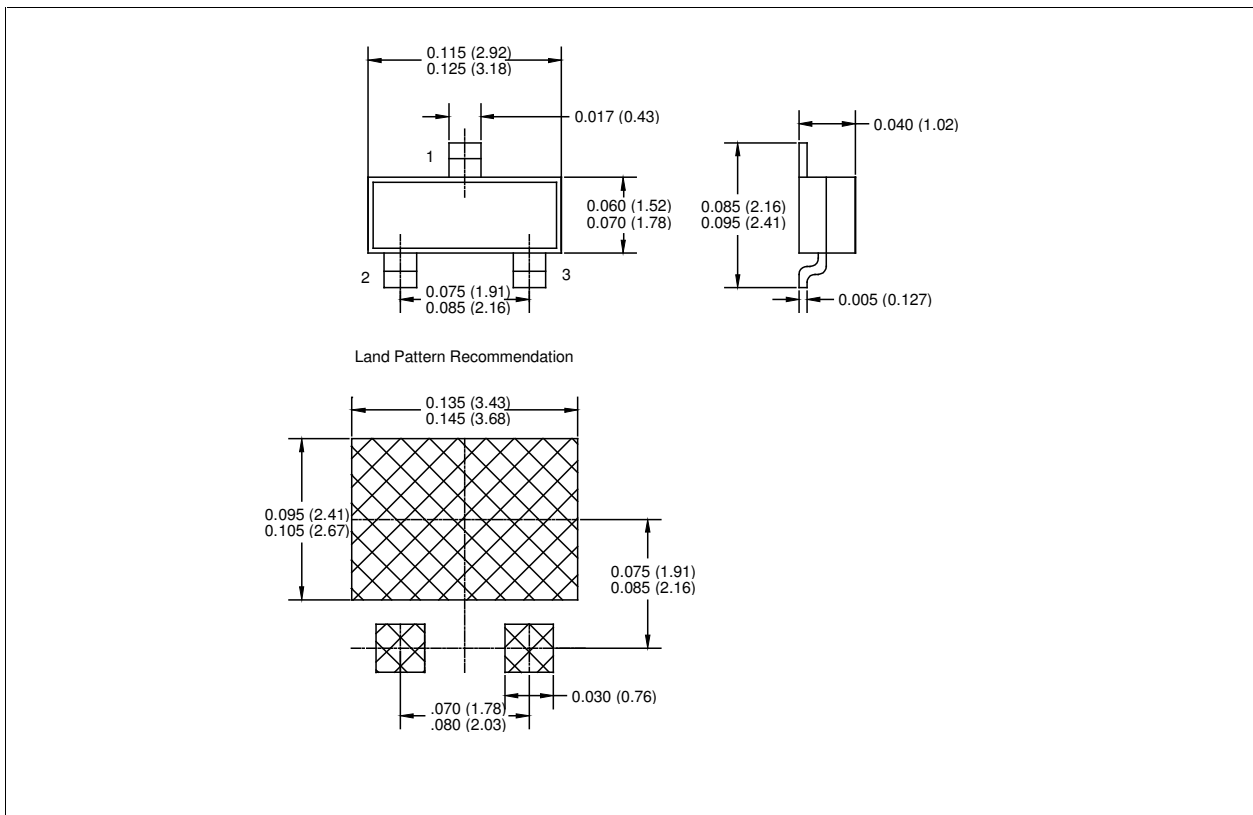
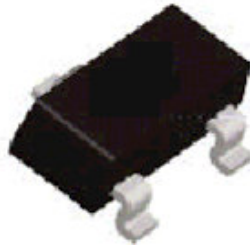
Characteristics	Symbol	Condition	Max.	Units
Peak Inverse Voltage	$V_{RWM}$	-	45	V
Max. Average Forward Current (Common Cathode Device)	$I_{F(AV)}$	50% duty cycle, rectangular wave form @ $T_C = 100\text{ }^\circ\text{C}$	2.0	A
Max. Average Forward Current (Single Diode)	$I_{F(AV)}$	50% duty cycle, rectangular wave form @ $T_C = 100\text{ }^\circ\text{C}$	1.0	A
Max. Peak One Cycle Non-Repetitive Surge Current (per leg)	$I_{FSM}$	8.3 ms, half Sine pulse	25	A
Non-Repetitive Avalanche Energy (per leg)	$E_{AS}$	$T_J = 25\text{ }^\circ\text{C}$ , $I_{AS} = 0.74\text{ A}$ , $L = 18\text{ mH}$	5.0	mJ
Repetitive Avalanche Current (per leg)	$I_{AR}$	$I_{AS}$ decay linearly to 0 in $1\text{ }\mu\text{s}$ $f$ limited by $T_J$ max $V_A = 1.5V_R$	0.74	A
Max. Junction Temperature	$T_J$	-	-65 to +150	$^\circ\text{C}$
Max. Storage Temperature	$T_{stg}$	-	-65 to +150	$^\circ\text{C}$

**Electrical Characteristics:**

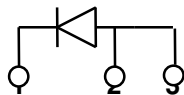
Characteristics	Symbol	Condition	Max.	Units
Max. Forward Voltage Drop (per leg)	$V_{F1}$	@ 1A, Pulse, $T_J = 25\text{ }^\circ\text{C}$	0.56	V
	$V_{F2}$	@ 1A, Pulse, $T_J = 125\text{ }^\circ\text{C}$	0.51	V
Max. Reverse Current (per leg)	$I_{R1}$	@ $V_R = 45\text{ V}$ , Pulse, $T_J = 25\text{ }^\circ\text{C}$	100	$\mu\text{A}$
	$I_{R2}$	@ $V_R = 45\text{ V}$ , Pulse, $T_J = 125\text{ }^\circ\text{C}$	4.5	mA
Max. Junction Capacitance (per leg)	$C_T$	@ $V_R = 5\text{ V}$ , $T_C = 25\text{ }^\circ\text{C}$ $f_{SIG} = 1\text{ MHz}$ , $V_{SIG} = 50\text{ mV (p-p)}$	53	pF
Maximum Thermal Resis.	$R_{\theta JC}$	-	15 (to bottom) 30 (to anode)	$^\circ\text{C/W}$

**Mechanical Dimensions: In Inches / mm**

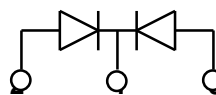
**SHD-23**



**SINGLE**



**COMMON CATHODE**



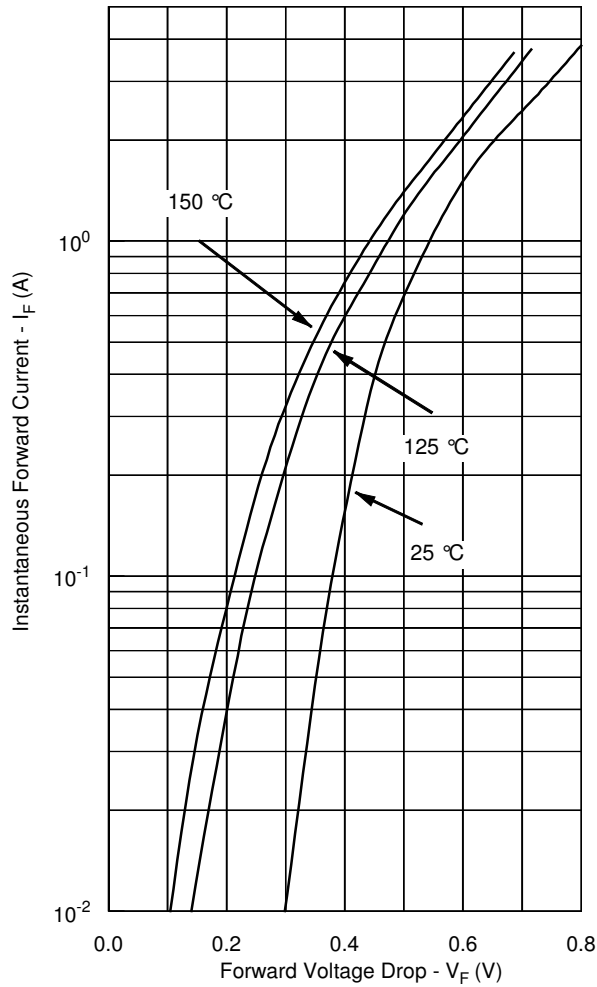
**PINOUTS - SHD-23**

DEVICE TYPE	PIN 1	PIN 2	PIN 3
SINGLE RECTIFIER	CATHODE	ANODE	ANODE
COMMON CATHODE RECTIFIER	CATHODE	ANODE 1	ANODE 2

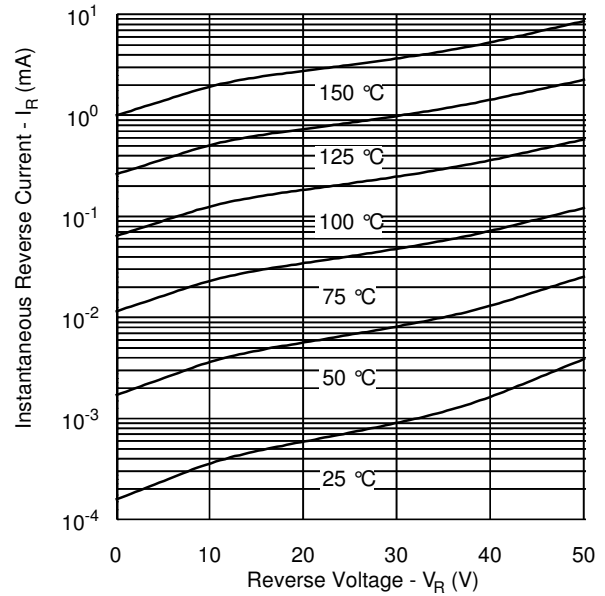
**SENSITRON**

**TECHNICAL DATA**  
**DATASHEET 471, REV. -**

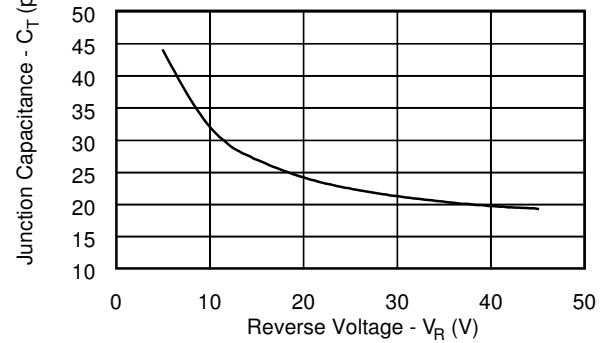
**Typical Forward Characteristics**



**Typical Reverse Characteristics**



**Typical Junction Capacitance**



**TECHNICAL DATA**

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