

TECHNICAL DATA  
DATA SHEET 578, REV. -

## HERMETIC SCHOTTKY RECTIFIER Very Low Forward Voltage Drop (2A, 30V, 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	$V_{RWM}$	-	30	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	A
Max. Average Forward Current (Single Diode)	$I_{F(AV)}$	50% duty cycle, rectangular wave form @ $T_C = 100\text{ }^\circ\text{C}$	1	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)	$E_{AS}$	$T_J = 25\text{ }^\circ\text{C}$ , $I_{AS} = 0.74\text{ A}$ , $L = 12\text{ mH}$	3.2	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	$^\circ\text{C}$

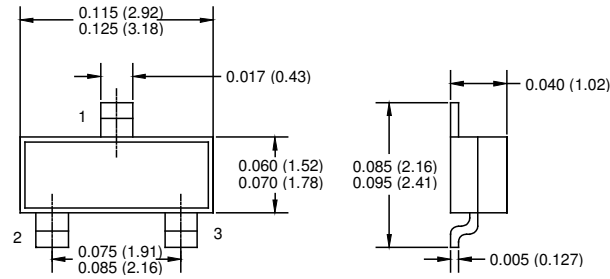
### Electrical Characteristics:

Characteristics	Symbol	Condition	Max.	Units
Max. Forward Voltage Drop (per leg)	$V_{F1}$	@ 1A, Pulse, $T_J = 25\text{ }^\circ\text{C}$	0.49	V
	$V_{F2}$	@ 1A, Pulse, $T_J = 125\text{ }^\circ\text{C}$	0.39	V
Max. Reverse Current (per leg)	$I_{R1}$	@ $V_R = 30\text{ V}$ , Pulse, $T_J = 25\text{ }^\circ\text{C}$	100	$\mu\text{A}$
	$I_{R2}$	@ $V_R = 30\text{ V}$ , Pulse, $T_J = 125\text{ }^\circ\text{C}$	0.12	mA
Max. Junction Capacitance (per leg)	$C_T$	@ $V_R = 5\text{ V}$ , $T_C = 25\text{ }^\circ\text{C}$ $f_{SIG} = 1\text{ MHz}$ , $V_{SIG} = 50\text{ mV (p-p)}$	6.0	pF
Maximum Thermal Resis. (per leg)	$R_{\theta JC}$	-	15 (to bottom) 30 (to anode)	$^\circ\text{C/W}$

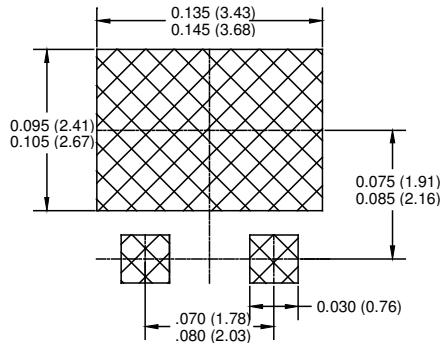
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Mechanical Dimensions: In Inches / mm

**SHD-23**



Land Pattern Recommendation

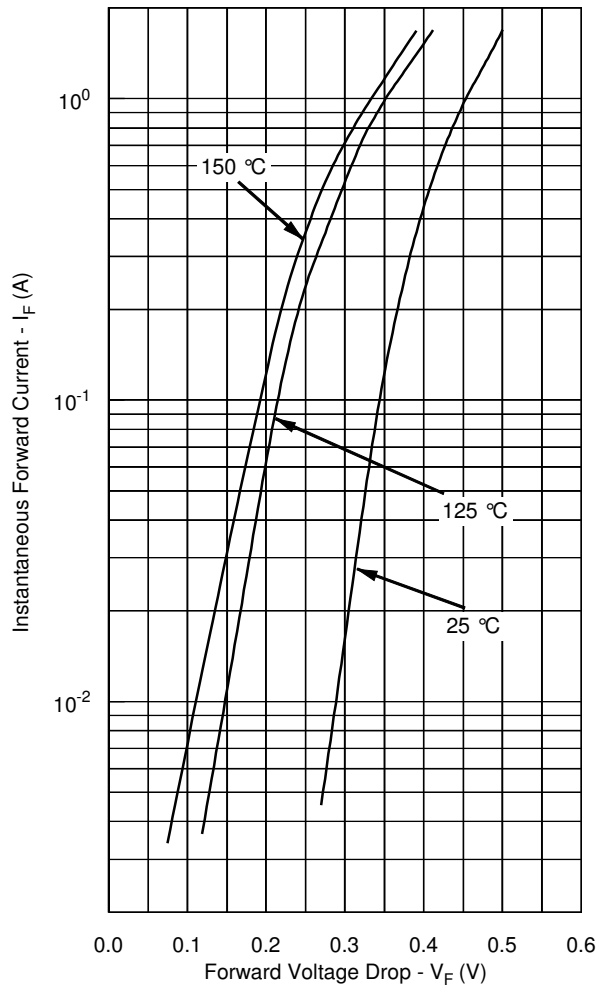


**PINOUPS - SHD-23**

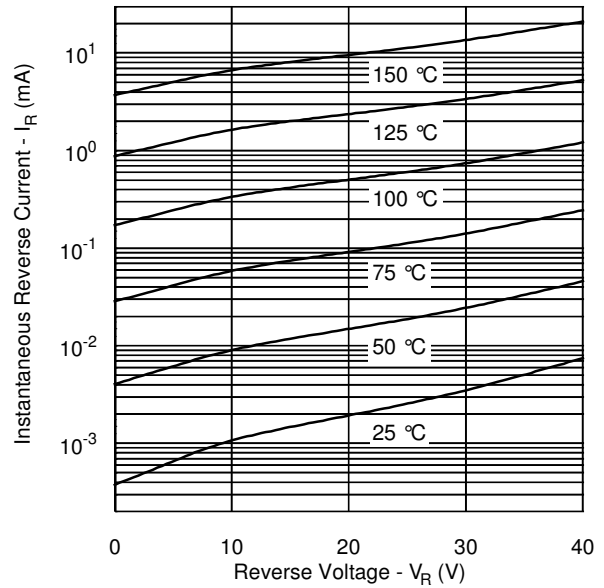
DEVICE TYPE	PIN 1	PIN 2	PIN 3
SINGLE RECTIFIER	CATHODE	ANODE	ANODE
COMMON CATHODE RECTIFIER	CATHODE	ANODE	ANODE

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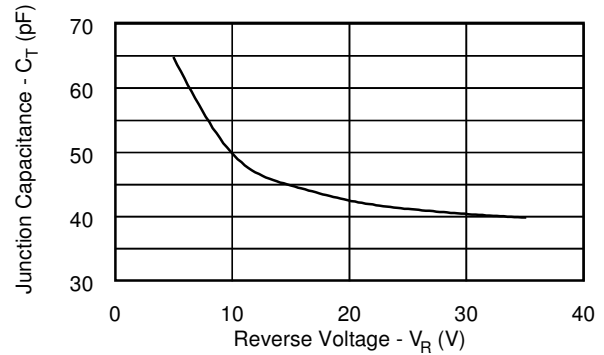
**Typical Forward Characteristics**



**Typical Reverse Characteristics**



**Typical Junction Capacitance**



**TECHNICAL DATA**

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