

TECHNICAL DATA
DATASHEET 4244, Rev-

SCHOTTKY FAST SWITCHING DIODES

Sensitron's Power Semiconductor Products have been used in space, military and high-rel applications for more than 30 years. Our 100V Schottky fast switching diodes, 1N6761-1/UR-1 & 1N6824-1/UR-1, are available in both axial and melf packaging. We also supply 100V Schottky die products.

Applications / Markets:

- ▼ Switching power supply
- ▼ Converters
- ▼ Free-Wheeling Diodes
- ▼ Polarity protection diode
- ▼ High-rel industrial
- ▼ Military
- ▼ Aerospace
- ▼ Space/satellites

Features / Benefits:

- ▼ 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
- ▼ Guaranteed Reverse Avalanche Characteristics
- ▼ Outperforms 100 Volt Ultra Fast Rectifiers
- ▼ Hermetic, non-cavity glass package
- ▼ Metallurgically bonded
- ▼ Screening to TX, TXV, S levels available

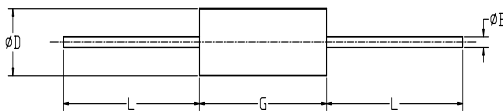
All ratings are at $T_A = 25^\circ\text{C}$ unless otherwise specified.

RATING		SYMBOL	CONDITIONS	MIN	MAX	UNIT
Peak Inverse Voltage		VRWM	←	-	100	Vdc
Average DC Output Current (I_o)		I_o	↑	-	1.0	Amps
Peak Single Cycle Surge Current (I_{fsm})		IFSM	$t_p = 8.3$ ms Half Sine Wave,	-	25	Amps(pk)
CHARACTERISTIC		CONDITIONS		MIN	MAX	UNIT
Maximum Forward Voltage	6761	Vf	$I_F = 0.1\text{A}$ (300 μsec pulse, duty cycle < 2%)	-	0.38	Volts
Maximum Forward Voltage	6824 6761	Vf	$I_F = 1.0\text{A}$ (300 μsec pulse, duty cycle < 2%)	-	0.49 0.69	Volts
Maximum Instantaneous Reverse Current At Rated VRWM	6824 6761	Ir	$T_A = 25^\circ\text{C}$ VR=100V $T_A = 100^\circ\text{C}$	-	10 100	μAmps
Junction Capacitance (C_J)	6824 6761		$V_R = 5$ Vdc	-	40 70	pF

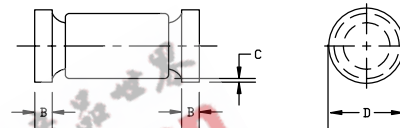
SENSITRON
TECHNICAL DATA
DATASHEET 4244, Rev-

PACKAGE DIMENSIONS

Axial



MELF



SCHOTTKY BARRIER

PACKAGE STYLE	DIMENSIONS - INCHES (MILLIMETERS)			
	ϕB	ϕD	G	L
DO-41	.028/.034	.08/.107	.160/.205	1.00/1.30
	0.71/0.86	2.03/2.72	4.06/5.21	25.4/33.02

SCHOTTKY BARRIER

PACKAGE STYLE	DIMENSIONS - INCHES (MILLIMETERS)			
	A	B	C	D
DO-213AB	.189/.205	.016/.022	0.001 Min	.094/.105
	4.80/5.21	0.41/0.56	0.03 Min	2.39/2.67

DISCLAIMER:

- 1- The information given herein, including the specifications and dimensions, is subject to change without prior notice to improve product characteristics. Before ordering, purchasers are advised to contact the Sensitron Semiconductor sales department for the latest version of the datasheet(s).
- 2- In cases where extremely high reliability is required (such as use in nuclear power control, aerospace and aviation, traffic equipment, medical equipment, and safety equipment), safety should be ensured by using semiconductor devices that feature assured safety or by means of users' fail-safe precautions or other arrangement.
- 3- In no event shall Sensitron Semiconductor be liable for any damages that may result from an accident or any other cause during operation of the user's units according to the datasheet(s). Sensitron Semiconductor assumes no responsibility for any intellectual property claims or any other problems that may result from applications of information, products or circuits described in the datasheets.
- 4- In no event shall Sensitron Semiconductor be liable for any failure in a semiconductor device or any secondary damage resulting from use at a value exceeding the absolute maximum rating.
- 5- No license is granted by the datasheet(s) under any patents or other rights of any third party or Sensitron Semiconductor.
- 6- The datasheet(s) may not be reproduced or duplicated, in any form, in whole or part, without the expressed written permission of Sensitron Semiconductor.
- 7- The products (technologies) described in the datasheet(s) are not to be provided to any party whose purpose in their application will hinder maintenance of international peace and safety nor are they to be applied to that purpose by their direct purchasers or any third party. When exporting these products (technologies), the necessary procedures are to be taken in accordance with related laws and regulations.