

TECHNICAL DATA DATA SHEET 4647, REV. -

HERMETIC SCHOTTKY RECTIFIER Low Forward Voltage Drop

Features:

- Soft Reverse Recovery at Low and High Temperature
- 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}	-	200	V
Max. Average Forward Current	$I_{F(AV)}$	50% duty cycle, rectangular wave form (Single)	3.0	Α
Max. Average Forward Current	I _{F(AV)}	50% duty cycle, rectangular wave form (Common Cathode)	6	Α
Max. Peak One Cycle Non- Repetitive Surge Current	I _{FSM}	8.3 ms, half Sine wave (per leg)	55	Α
Non-Repetitive Avalanche Energy	E _{AS}	$T_J = 25 ^{\circ}\text{C}, \ I_{AS} = 3.0 \text{A}, \ L = 4.4 \text{mH (per leg)}$	20	mJ
Repetitive Avalanche Current	I _{AR}	I_{AS} decay linearly to 0 in 1 μ s f limited by T_J max V_A =1.5 V_R	3.0	А
Maximum Thermal Resistance	$R_{ heta JC}$	(Single) (Common Cathode)	2.97 5.95	°C/W
Max. Junction Temperature	T_J	-	-65 to +200	°C
Max. Storage Temperature	T _{stg}	-	-65 to +200	°C

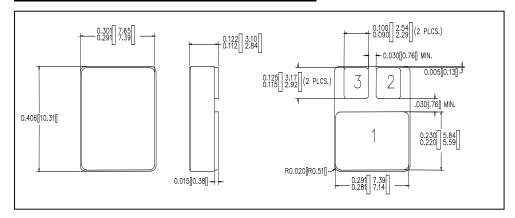
Electrical Characteristics

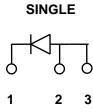
Characteristics	Symbol	Condition	Max.	Units
Max. Forward Voltage Drop	V_{F1}	@ 3.0A, Pulse, T _J = 25 °C	0.97	V
(per leg)	V _{F2}	@ 3.0A, Pulse, T _J = 125 °C	0.81	V
Max. Reverse Current	I _{R1}	@V _R = 200V, Pulse,	0.003	mA
		T _J = 25 °C		
(per leg)	I_{R2}	@V _R = 200V, Pulse,	0.2	mA
		T _J = 125 °C		
Max. Junction Capacitance	C _T	$@V_R = 5V, T_C = 25 ^{\circ}C$	60	pF
(per leg)		$f_{SIG} = 1MHz,$		
		$V_{SIG} = 50 \text{mV (p-p)}$		

TECHNICAL DATA DATA SHEET 4647, REV. -

Mechanical Dimensions: in Inches / mm

LCC-5





PINOUT TABLE

0.0

0.2

0.4

0.6

Forward Voltage Drop - V_F (V)

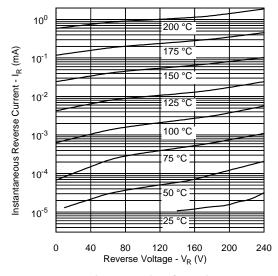
DEVICE TYPE	PIN 1	PIN 2	PIN 3
SINGLE RECTIFIER	CATHODE	ANODE	ANODE

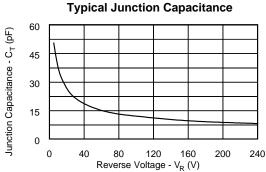
Note: The V_f curves shown are for the SD60SCU200 unpackaged die only.

Typical Forward Characteristics

10° 200° ° C 175° ° C 125° ° C 125° ° C 10° 3

Typical Reverse Characteristics





1.0



TECHNICAL DATA

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.