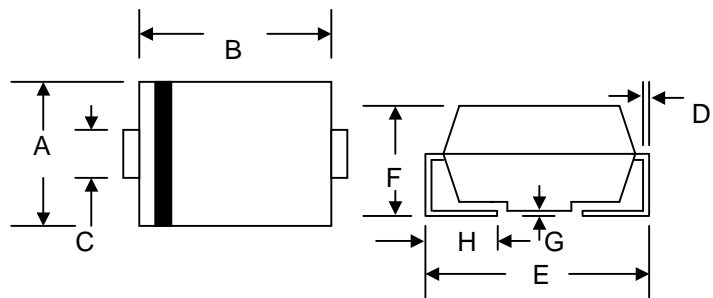


Data Sheet 2844, Rev.-

**Features**

- Schottky Barrier Chip
- Ideally Suited for Automatic Assembly
- Low Power Loss, High Efficiency
- Surge Overload Rating to 100A Peak
- For Use in Low Voltage Application
- Guard Ring Die Construction
- Plastic Case Material has UL Flammability Classification Rating 94V-O



**Mechanical Data**

- Case: Low Profile Molded Plastic
- Terminals: Solder Plated, Solderable per MIL-STD-750, Method 2026
- Polarity: Cathode Band or Cathode Notch
- Marking: Type Number
- Weight: 0.21 grams (approx.)

SMB/DO-214AA				
Dim	Min	Max	Min	Max
A	5.59	6.22	0.220	0.245
B	6.60	7.11	0.260	0.280
C	2.75	3.25	0.108	0.128
D	0.15	0.31	0.006	0.012
E	7.75	8.13	0.305	0.320
F	2.00	2.62	0.079	0.103
G	0.05	0.20	0.002	0.008
H	0.76	1.27	0.030	0.050
	In mm		In inch	

**Maximum Ratings and Electrical Characteristics @T<sub>A</sub>=25°C unless otherwise specified**

Characteristic	Symbol	SK32	SK33	SK34	SK35	SK36	SK38	SK39	S310	Unit
Peak Repetitive Reverse Voltage	V <sub>RRM</sub>									
Working Peak Reverse Voltage	V <sub>VRM</sub>	20	30	40	50	60	80	90	100	V
DC Blocking Voltage	V <sub>R</sub>									
RMS Reverse Voltage	V <sub>R(RMS)</sub>	14	21	28	35	42	56	64	71	V
Average Rectified Output Current @T <sub>L</sub> = 75°C	I <sub>o</sub>	3.0								A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	100								A
Forward Voltage @I <sub>F</sub> = 3.0A	V <sub>FM</sub>	0.55			0.75		0.85			V
Peak Reverse Current @T <sub>A</sub> = 25°C	I <sub>RM</sub>	0.5								mA
At Rated DC Blocking Voltage @T <sub>A</sub> = 100°C		20								
Typical Thermal Resistance Junction to Ambient (Note 1)	R <sub>θJA</sub>	55								K/W
Operating Temperature Range	T <sub>j</sub>	-65 to +125								°C
Storage Temperature Range	T <sub>STG</sub>	-65 to +150								°C

Note: 1. Mounted on P.C. Board with 14mm<sup>2</sup> copper pad areas

Data Sheet 2844, Rev. -

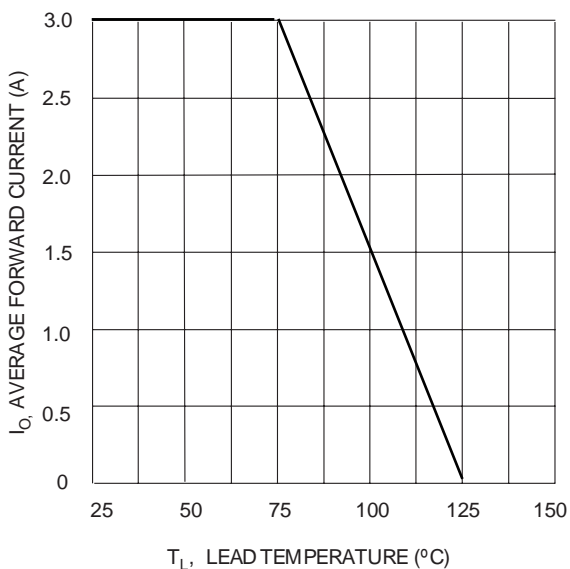


Fig. 1 Forward Current Derating Curve

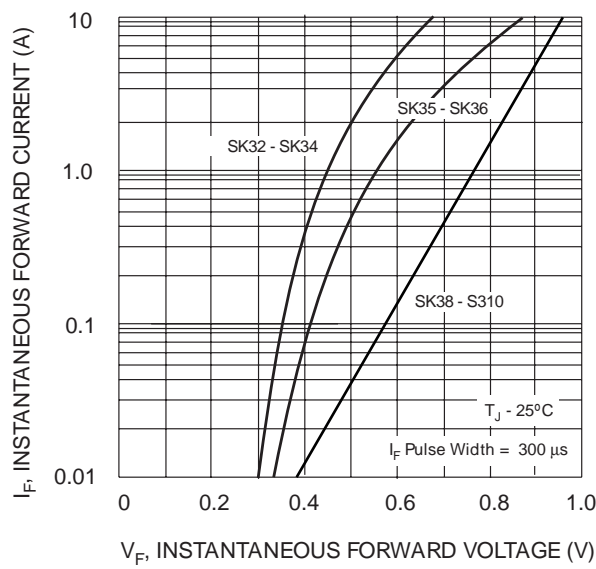


Fig. 2 Typical Forward Characteristics

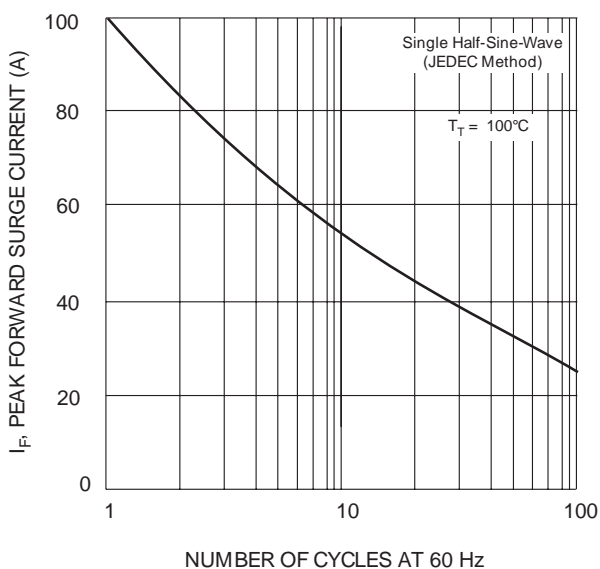


Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

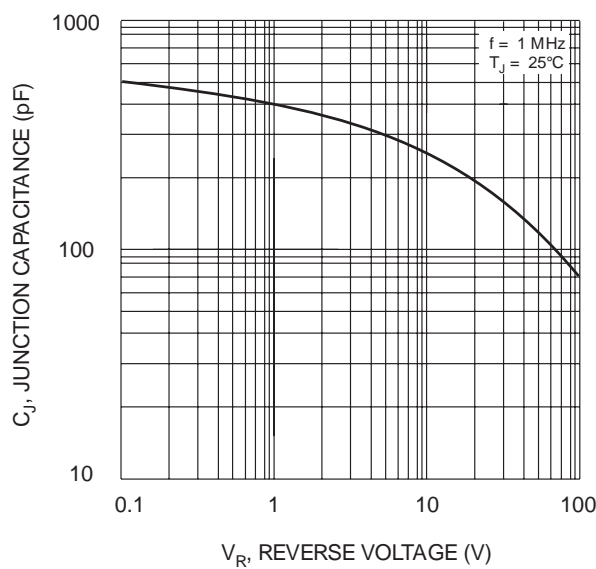


Fig. 4 Typical Junction Capacitance

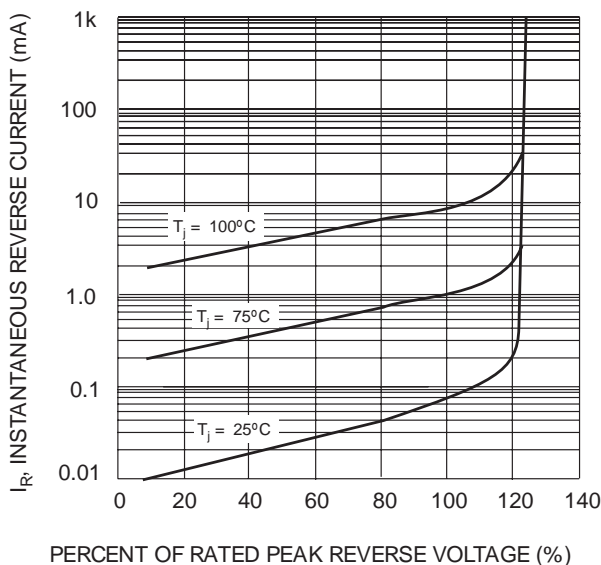


Fig. 5 Typical Reverse Characteristics

**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.