DACO®

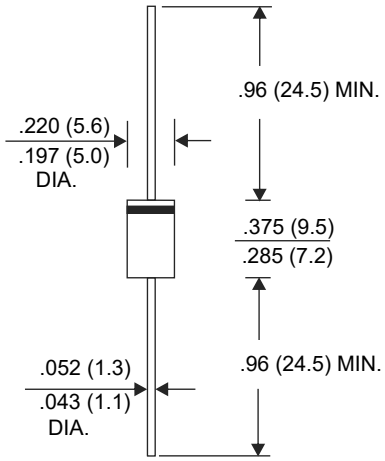
SB540 THRU SB5200

5.0A SCHOTTKY BARRIER DIODE

Features And Mechanical Data

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Metal silicon junction ,majority carrier conduction
- Guard ring for over voltage protection
- Low power loss ,high efficiency
- High current capability ,Low forward voltage drop High surge capability
- For use in low voltage ,high frequency inverters, free wheeling ,and polarity protection applications
- High temperature soldering:260℃ MAX at 10 seconds, per JESD 22-B106 or MIL-STD-750,method 2026
- Case: JEDEC D0-27(D0-201AD) molded plastic body

DO-27(DO-201AD)



Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

Ratings at 25℃ ambient temperature unless otherwise specified. Single phase, half wave, 60HZ, resistive or inductive load. For capacitive load, derate current by 20%.

Type Number and marks	Symbols	SB 540	SB 545	SB 560	SB 580	SB 5100	SB 5120	SB 5150	SB 5200	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	40	45	60	80	100	120	150	200	Volts
Maximum RMS Voltage	V_{RMS}	28	31.5	42	56	70	84	105	140	Volts
Maximum DC Blocking Voltage	V_{DC}	40	45	60	80	100	120	150	200	Volts
Maximum Average Forward Rectified Current. Lead Length @Ta(Fig 1)	$I_{(AV)}$	5.0								Amp
Peak Forward Surge Current, 8.3 ms single half-sine-wave superimposed on rated load (JEDEC method) (Rating of per diode)	I_{FSM}	120								Amp
Maximum instantaneous forward voltage at $I_{(AV)}$	V_F	0.55		0.75		0.85		0.90	0.95	Volts
Maximum DC reverse current at rated DC blocking voltage per T_j=25℃	I_R	0.2			0.1					mA
T_j=100℃		20			8					
Typical Thermal Resistance	$R_{\Theta JA}$	25								℃/W
Junction Temperature	T_J	-65 to +150								℃
Storage Temperature Range	T_{STG}	-65 to +150								℃

RATINGS AND CHARACTERISTIV CURVES

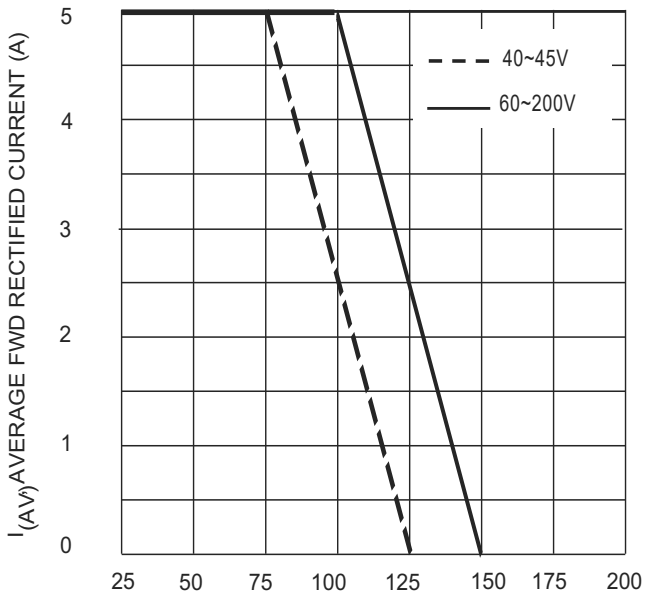


Fig. 1 Forward Derating Curve

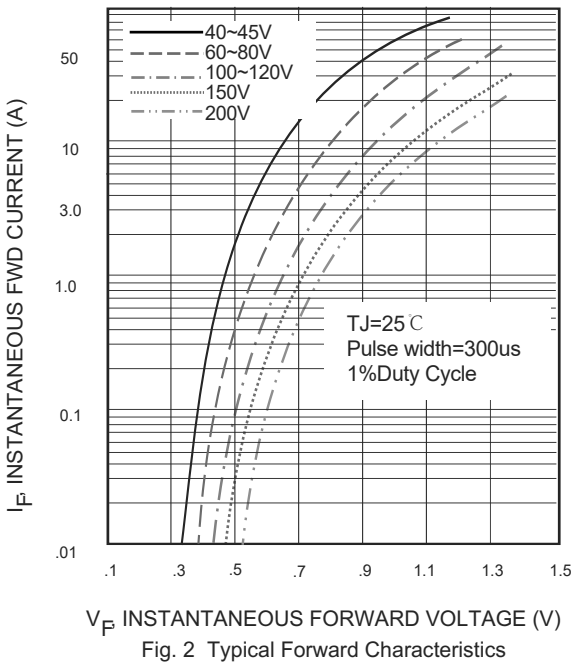


Fig. 2 Typical Forward Characteristics

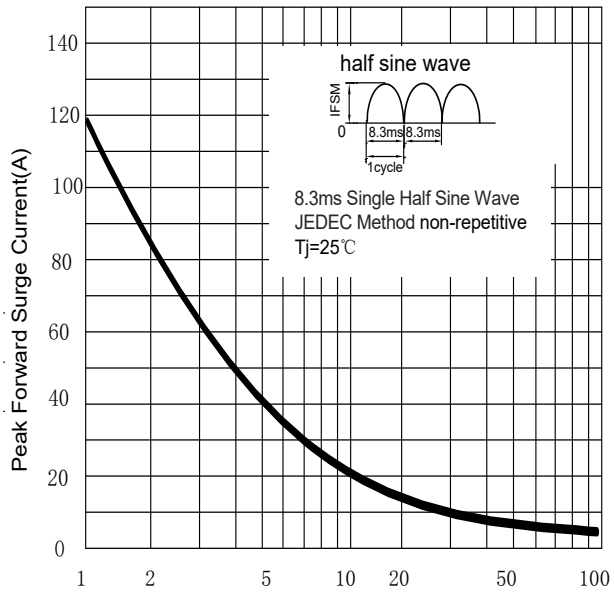


Fig. 3 Peak Forward Surge Current

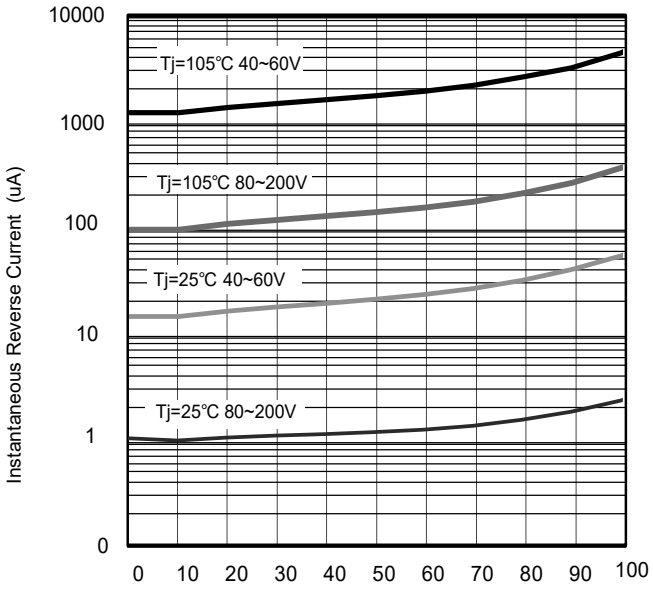


Fig.4-Typical Forward Characteristics

Disclaimer

DACO Semiconductor reserves the right to make modifications, enhancements, improvements, corrections, or other changes to this document and any product described herein without prior notice.For the most up-to-date version, please visit our website.

DACO Semiconductor makes no warranty, representation, or guarantee regarding the suitability of its products for any particular purpose, nor does DACO Semiconductor assume any liability arising out of the application or use of any product or circuit, and specifically disclaims any liability, including without limitation special, consequential or incidental damages.

Purchasers are responsible for its products and applications using DACO Semiconductor products, including compliance with all laws, regulations, and safety requirements or standards, regardless of any support or application information provided by DACO Semiconductor. “Typical” parameters that may be provided in DACO Semiconductor datasheets and/or specifications can and do vary in different applications and actual performance may vary over time. All operating parameters, including “Typical” must be validated for each customer application by the customer’s technical experts.

DACO Semiconductor products are not designed, authorized, or warranted to be suitable for use in life support, life-critical or safety-critical systems, or equipment, nor in applications where failure or malfunction of DACO Semiconductor’s product can reasonably be expected to result in personal injury, death or severe property or environmental damage. DACO Semiconductor accepts no liability for the inclusion and/or use of DACO Semiconductor’s products in such equipment or applications and therefore such inclusion and/or use is at the customer’s own risk.

Purchasers who buy or use DACO Semiconductor products for any unintended or unauthorized applications are required to indemnify and absolve DACO Semiconductor, its suppliers, and distributors from any claims, costs, damages, expenses, and reasonable attorney fees arising out of, directly or indirectly, any claim of personal injury or death associated with such unintended or unauthorized use, even if such claim alleges that DACO Semiconductor was negligent regarding the design or manufacture of the part.

No part of this publication may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying and recording, or by any information storage and retrieval system, or otherwise, without the prior written permission of DACO Semiconductor Co., Ltd.