UF3006

SUPER FAST RECTIFIER DATA SHEET

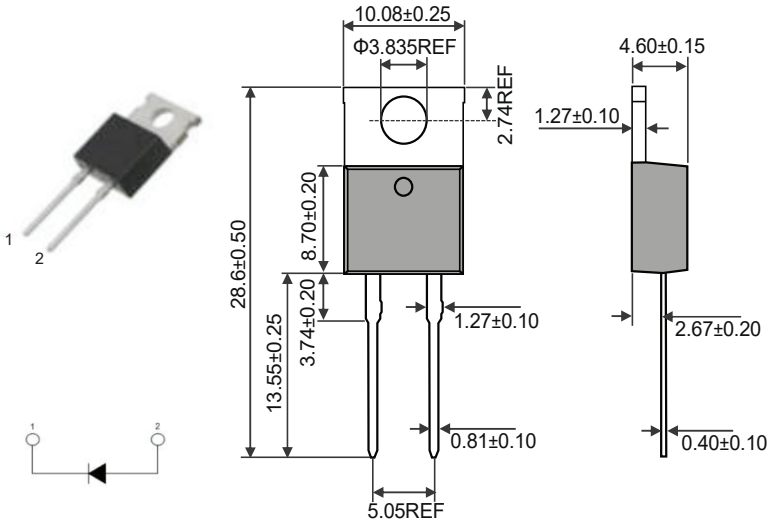
FEATURES

- Super fast switching for high efficiency.
- Low reverse leakage.
- High forward surge current capability.
- RoHs Product.

MECHANICAL DATA

Mainly used in switching power supply, PWM pulse width modulator,inverter as a freewheeling and other electronic circuits, high-frequency rectifier diode, diode or damping diode use

TO-220AC Unit: mm



Maximum Ratings and Electrical Charateristics @T_A=25℃ unless otherwise specified

Absolute Maximum Ratings

Parameter	Symbol	Test Conditions	Values	Unit
Repetitive peak reverse voltage	V_{RRM}		600	V
Continuous forward current	$I_{F(AV)}$	(Rated VR-20Khz Square Wave)-50% duty cycle	30	A
Single pulse forward current	I_{FSM}	8.3 Half Mssine Wave-According to JEDEC Method	320	A
Operating junction	T_J		-40 to +175	℃
Storage temperatures	T_{stg}		-40 to +175	℃

Electrical characteristics (T_J=25℃unless otherwise specified)

Parameter	Symbol	Test Conditions	Min.	Typ.	Max.	Unit
Breakdown voltage Blocking voltage	V_R	I_R=100μA	600			V
Forward voltage	V_F	I_F=30 A		2.2	2.6	V
		I_F=30 A, T_J =125℃			1.8	V
Reverse leakage current	I_R	V_R= V_{RRM}			10	μA
		T_J=125℃, V_R=600V			500	μA
Reverse recovery time	Trr	I_F=0.5A, I_R=1A,I_{RR}=0.25A		35	40	ns

Thermal characteristics

Parameter	Symbol	Typ	MAX	Unit
Junction-to-Case	R_{thJC}	-	1.0	℃/W

RATINGS AND CHARACTERISTIC CURVES

Fig. 1- Current derating curve, perelement

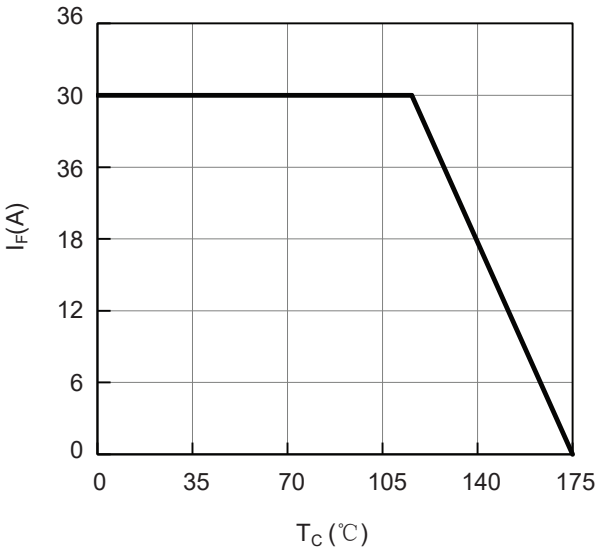


Fig. 2 - The forward voltage and forward current curve

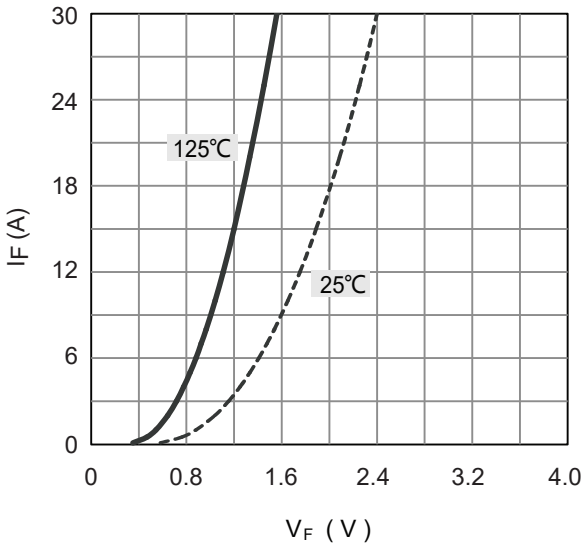


Fig. 3 - The reverse leakage current and the reverse voltage (single-device) curve.

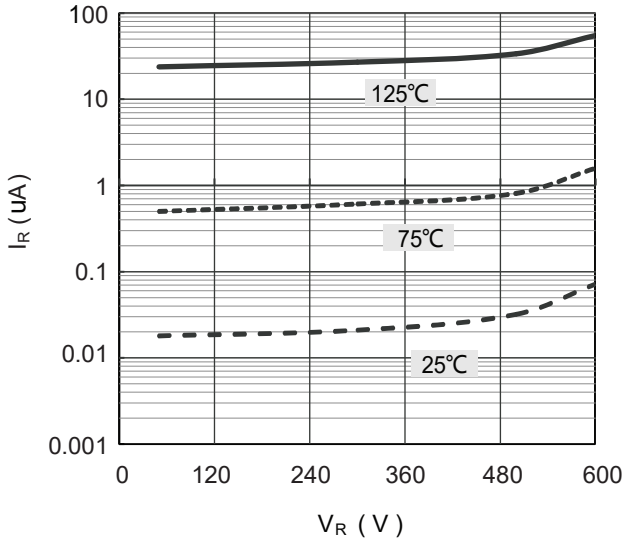
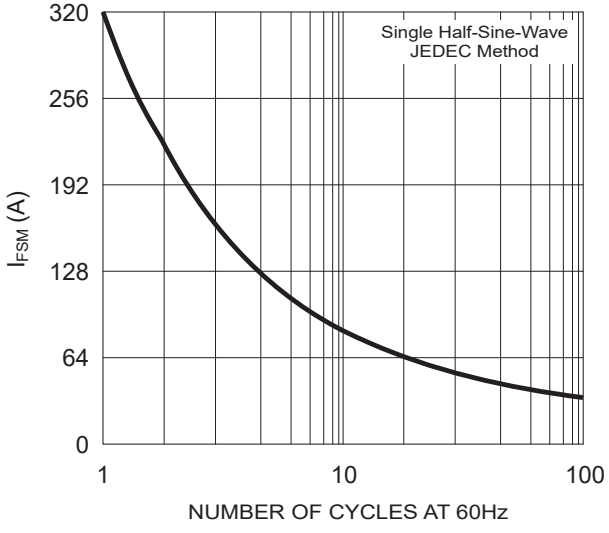


Fig. 4 - Forward surge current derating curve



Disclaimer

DACO reserves the right to modify the content of this document at any time without prior notice. However, for significant changes to products or services, DACO will notify customers in compliance with JEDEC standards for Product Change Notifications (PCN) and End-of-Life (EOL) Notifications.

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.