



SURFACE MOUNT SILICON RECTIFIERS

FEATURES

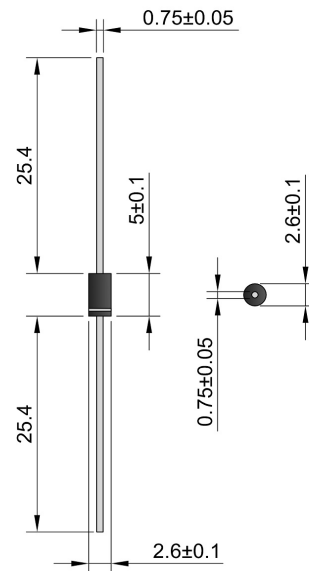
- Low Forward Voltage Drop
- Low Leakage
- High Current Capability
- High Surge Current Capability
- Plastic Case Material has UL Flammability Classification Rating 94V-0

MECHANICAL DATA

- Case: DO-41 TYPE molded Plastic
- Polarity: as marked
- Weight: 0.35 grams(approx)
- Lead Free:For RoHS/Lead Free Version, Green molding compound as per IEC61249 Std

DO-41

Unit: mm



Maximum Ratings and Electrical Characteristics @T_A=25°C unless otherwise specified

Parameter Symbol	Symbol	EM512	EM514	EM516	EM518	EM520	Unit
Device marking code		EM512	EM514	EM516	EM518	EM520	
Maximum repetitive peak reverse voltage	V _{RRM}	1200	1400	1600	1800	2000	V
Maximum RMS voltage	V _{RMS}	840	980	1120	1260	1400	V
Maximum DC blocking voltage	V _{DC}	1200	1400	1600	1800	2000	V
Maximum average forward rectified current	I _{F(AV)}	1.0					A
Peak forward surge current:8.3ms single half sine-wave superimposed on rated load	I _{Fsm}	30					A
Maximum instantaneous forward voltage at 1A	V _F	1.15					V
Maximum leakage current T _J =25°C	I _R	5					uA
Maximum leakage current T _J =100°C		50					
Typical Junction Capacitance (Note1)	C _J	25		18			pF
Typical thermal resistance (Note2)	R _{thA}	≤55					°C/W
Operating temperature range	T _J	-55 to +150					°C
Storage temperature range	T _{STG}	-55 to +150					°C

Note: (1).Measured at 1.0MHz and applied reverse voltage of 4.0VDC
 (2).Thermal resistance from junction to ambient at 9.5mm lead length, **P.C.B.** mounted.



RATING AND CHARACTERISTIC CUEVES

Fig. 1 Rated forward current vs. ambient temperature

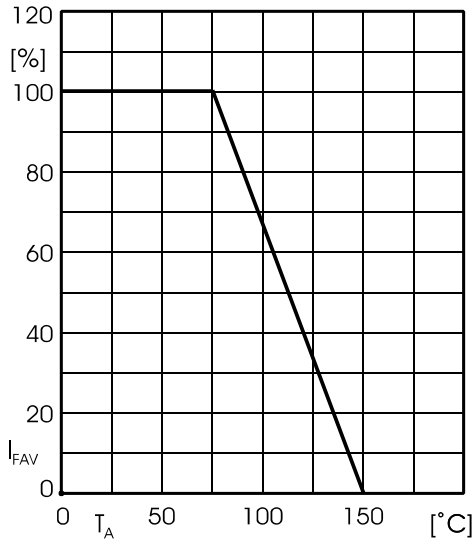


Fig. 2 Forward characteristics (typical values)

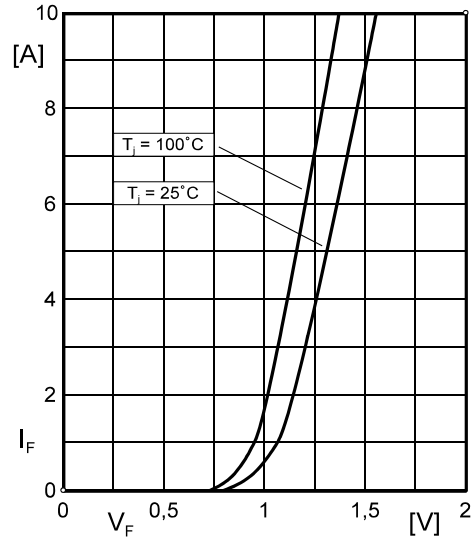


FIG. 3 – MAXIMUM NON-REPETITIVE SURGE CURRENT

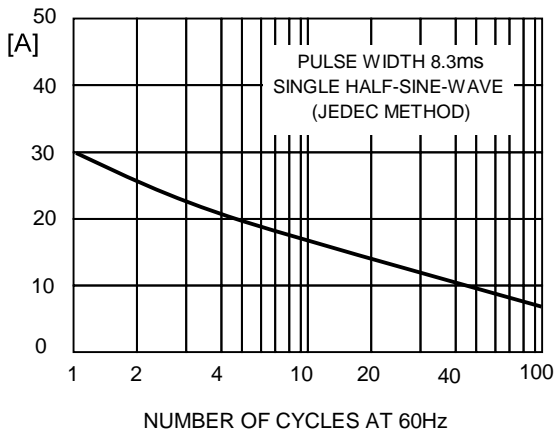
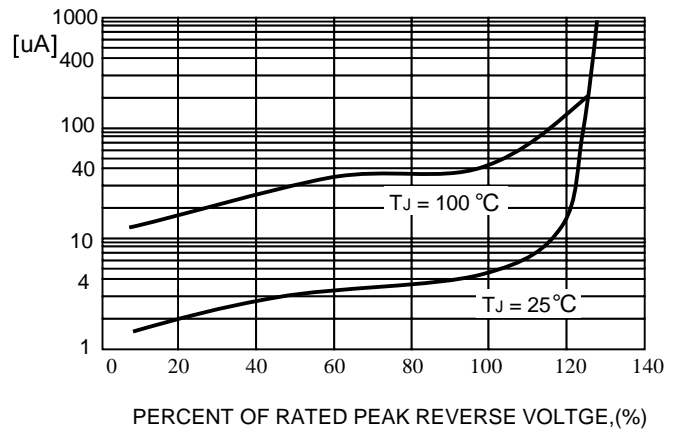


FIG.4-TYPICAL REVERSE CHARACTERISTICS





Disclaimer

DACO Semiconductor reserve the right to make modifications, enhancements, improvements, corrections or other changes without further notice to this document and any product described herein.

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 and all liability, including without limitation special, consequential or incidental damages.

Purchasers is 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 applications information provided by DACO Semiconductor. "Typical" parameters which may be provided in DACO Semiconductor data sheets and/or specifications can and do vary in different applications and actual performance may vary over time. All operating parameters, including "Typicals" must be validated for each customer application by 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 accept no liability for 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 buy or use DACO Semiconductor products for any such unintended or unauthorized application, Purchasers shall indemnify and hold DACO Semiconductor and its suppliers and distributors harmless against all claims, costs, damages, and 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 any information storage or retrieval system, or otherwise, without the prior written permission of DACO Semiconductor Co., Ltd.