

MSKSEMI 美森科

SEMICONDUCTOR



ESD



TVS



TSS



MOV



GDT



PLED

MS05A40LD

Product specification

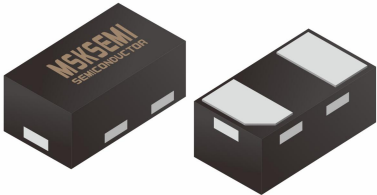

FEATURES

- Low Forward Voltage Drop
- Extremely Small DFN1006 Package
- Surface Device Type Mounting
- RoHS Compliant
- Green EMC
- Band Indicates Cathode
- Tape and reel: 10,000Pcs/ 7" reel

APPLICATIONS

- Low voltage rectification
- Reverse polarity protection
- Low power consumption applications

Reference News

PACKAGE OUTLINE	Marking
	
DFN-1006	

MAXIMUM RATING (Ta=25°C unless otherwise noted)

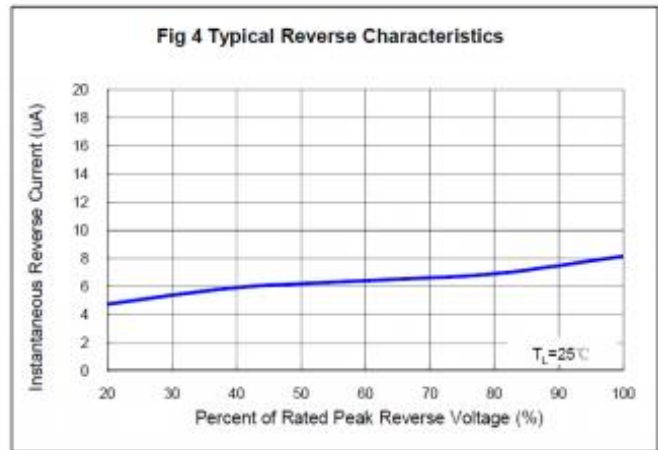
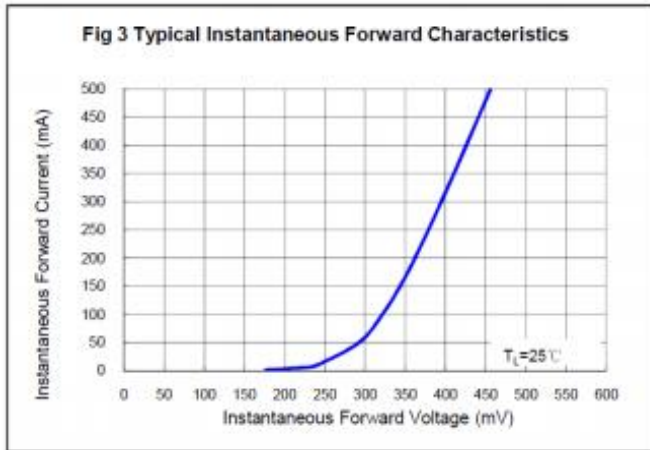
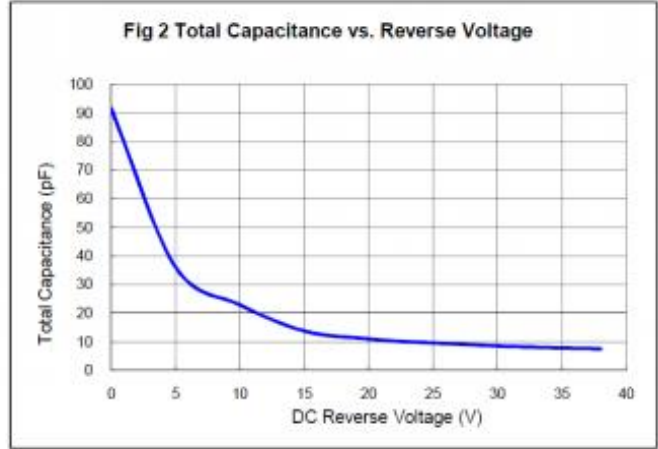
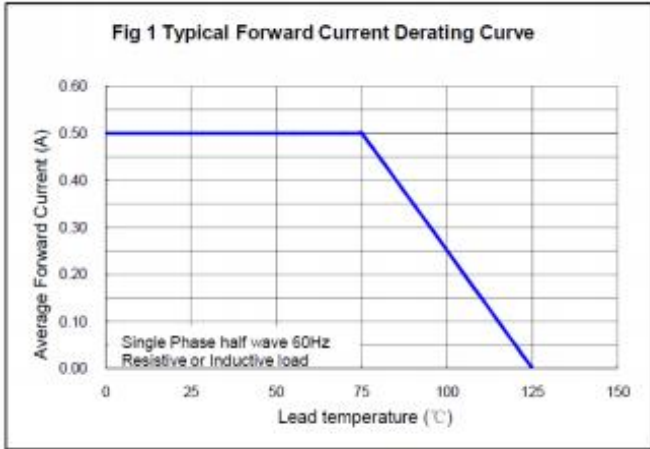
Symbol	Parameter	Value	Units
VRRM	Maximum repetitive reverse voltage	40	V
VR	Maximum DC blocking reverse voltage	40	V
IF(AV)	Average Forward Current	500	mA
IFSM	Peak Forward Surge Current (At 8.3ms single half sine-wave)	5	A
TJ	Operating Junction Temperature	-55 to +125	°C
TSTG	Storage Temperature Range	-55 to +150	°C

These ratings are limiting values above which the serviceability of the diode may be impaired.

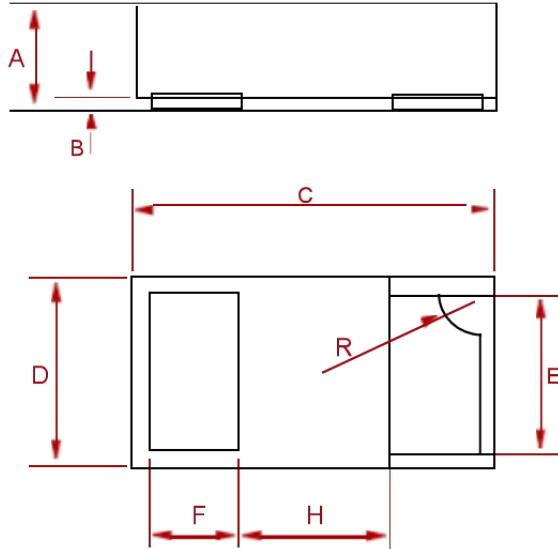
ELECTRICAL CHARACTERISTICS (Ta=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit
Breakdown Voltage at IR=100uA	VBR	40			V
Reverse Leakage Current at VR=20V	IR			50	μA
Reverse Leakage Current at VR=40V	IR			80	μA
Forward Voltage at IF=100mA	VF			0.37	V
Forward Voltage at IF=500mA	VF			0.50	V
Junction Capacitance VR = 5V, f = 1MHz	CJ		36		pF

ELECTRICAL CHARACTERISTICS CURVE

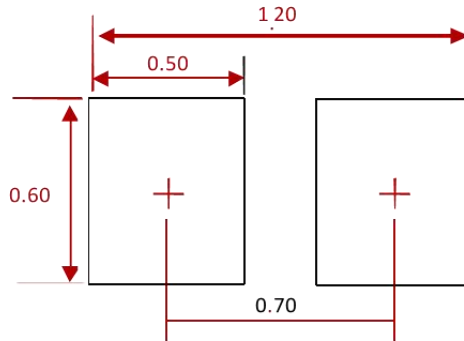


PACKAGE MECHANICAL DATA



Dim	Inches		Millimeters	
	MIN	MAX	MIN	MAX
A	0.0125	0.02	0.32	0.52
B	0.000	0.002	0.00	0.05
C	0.037	0.043	0.95	1.080
D	0.022	0.027	0.55	0.680
E	0.016	0.024	0.40	0.60
F	0.008	0.012	0.20	0.30
H	0.015Typ.		0.40Typ.	
R	0.001	0.005	0.05	0.15

Suggested Pad Layout



NOTES:

1. CONTROLLING DIMENSIONS ARE IN MILLIMETERS (ANGLES IN DEGREES).
2. THIS LAND PATTERN IS FOR REFERENCE PURPOSES ONLY. CONSULT YOUR MANUFACTURING GROUP TO ENSURE YOUR COMPANY'S MANUFACTURING GUIDELINES ARE MET.

REEL SPECIFICATION

P/N	PKG	QTY
MS05A40LD	DFN1006	10000

Attention

- Any and all MSKSEMI Semiconductor products described or contained herein do not have specifications that can handle applications that require extremely high levels of reliability, such as life-support systems, aircraft's control systems, or other applications whose failure can be reasonably expected to result in serious physical and/or material damage. Consult with your MSKSEMI Semiconductor representative nearest you before using any MSKSEMI Semiconductor products described or contained herein in such applications.
- MSKSEMI Semiconductor assumes no responsibility for equipment failures that result from using products at values that exceed, even momentarily, rated values (such as maximum ratings, operating condition ranges, or other parameters) listed in products specifications of any and all MSKSEMI Semiconductor products described or contained herein.
- Specifications of any and all MSKSEMI Semiconductor products described or contained herein stipulate the performance, characteristics, and functions of the described products in the independent state, and are not guarantees of the performance, characteristics, and functions of the described products as mounted in the customer's products or equipment. To verify symptoms and states that cannot be evaluated in an independent device, the customer should always evaluate and test devices mounted in the customer's products or equipment.
- MSKSEMI Semiconductor strives to supply high-quality high-reliability products. However, any and all semiconductor products fail with some probability. It is possible that these probabilistic failures could give rise to accidents or events that could endanger human lives, that could give rise to smoke or fire, or that could cause damage to other property. When designing equipment, adopt safety measures so that these kinds of accidents or events cannot occur. Such measures include but are not limited to protective circuits and error prevention circuits for safe design, redundant design, and structural design.
- In the event that any or all MSKSEMI Semiconductor products (including technical data, services) described or contained herein are controlled under any of applicable local export control laws and regulations, such products must not be exported without obtaining the export license from the authorities concerned in accordance with the above law.
- 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 MSKSEMI Semiconductor.
- Information (including circuit diagrams and circuit parameters) herein is for example only ; it is not guaranteed for volume production. MSKSEMI Semiconductor believes information herein is accurate and reliable, but no guarantees are made or implied regarding its use or any infringements of intellectual property rights or other rights of third parties.
- Any and all information described or contained herein are subject to change without notice due to product/technology improvement, etc. When designing equipment, refer to the "Delivery Specification" for the MSKSEMI Semiconductor product that you intend to use.