

1N5711, 1N5712, MADS-005711, MADS-005712



General Purpose Axial Lead Glass Packaged Schottky Diodes

Rev. V2

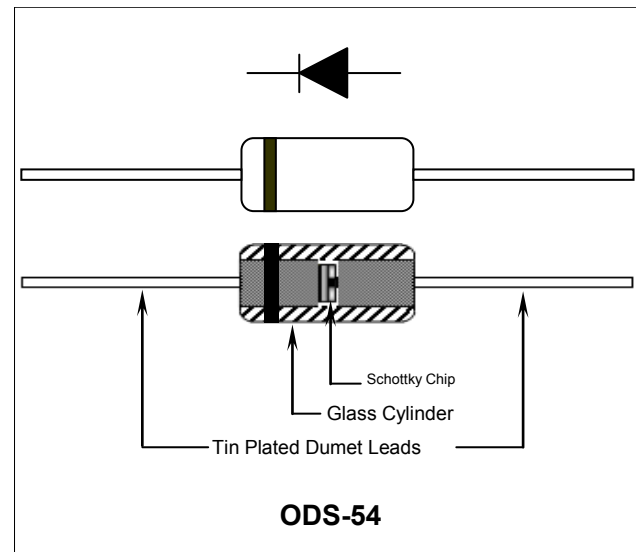
Features

- Low Reverse Leakage Current
- Low Forward Voltage Drop
- Pico second Switching Speed
- Offered in Tape and Reel Packaging
- RoHS* Compliant

Description and Applications

These silicon diodes are packaged in a hermetic axial lead glass package. Various uses include detecting, mixing and switching at low power levels. They are suitable for commercial switching along with control functions in narrow band receivers. These diodes can also be used in the UHF and VHF frequency bands for pulse shaping, sampling and as fast logic gates.

Glass Package Style



Ordering Information

Part Number	Package
1N5711	ESD Bag
MADS-005711-0054MT	1000 piece reel
1N5712	ESD Bag
MADS-005712-0054MT	1000 piece reel

Electrical Specifications¹: T_A = +25°C

Parameters and Test Conditions	Symbol	Units	1N5711 MADS-005711-0054MT		1N5712 MADS-005712-0054MT	
			Min.	Max.	Min.	Max.
Forward Voltage @ 1 mA	V _f	V	—	.410	—	.550
Forward Voltage @ 15 mA	V _f	V	—	1	—	—
Forward Voltage @ 35 mA	V _f	V	—	—	—	1
Voltage Breakdown @ 10 μA	V _b	V	70	—	20	—
Leakage Current @ 50 V	I _r	nA	—	200	—	—
Leakage Current @ 15 V	I _r	nA	—	—	—	150
Total Capacitance @ 0 V at 1 MHz ²	C _t	pF	—	2.0	—	1.2

1. Effective minority carrier lifetime (TI) is 100 pS maximum measured with the Krakauer method at 5 mA.

* Restrictions on Hazardous Substances, European Union Directive 2011/65/EU.

1N5711, 1N5712, MADS-005711, MADS-005712



General Purpose Axial Lead Glass Packaged Schottky Diodes

Rev. V2

Absolute Maximum Ratings^{2,3}

Parameter	Absolute Maximum
Reverse Voltage	See voltage ratings
Power Dissipation	250 mW Derate linearly to 0 @ 135°C
Soldering Temperature	+230°C for 5 seconds 1 mm from glass
Operating Temperature	-65°C to +150°C
Storage Temperature	-65°C to +200°C

- Exceeding any one or combination of these limits may cause permanent damage to this device.
- MACOM does not recommend sustained operation near these survivability limits.

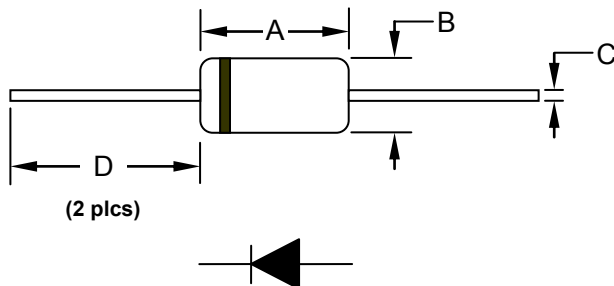
Handling Procedures

Please observe the following precautions to avoid damage:

Static Sensitivity

These electronic devices are sensitive to electrostatic discharge (ESD) and can be damaged by static electricity. Proper ESD control techniques should be used when handling these HBM Class 0 devices.

Package Outline Dimensions



Dimension	Mils	mm
A	155 ± 10	3.94 ± 0.25
B	71 ± 3	1.8 ± 0.08
C	15 ± 1	0.38 ± 0.03
D (min.)	1000	25.4

Assembly Recommendations

- Leads on axial leaded devices must be formed while being held firm. Bending the leads too close to the body of the part may cause internal damage to the device. Bends <0.060" from body are not recommended. Appropriate fixturing should be used.
- Devices may be soldered using standard 60/40, Sn/Pb or RoHS compliant solders. Axial leads are tin plated, 50 μM, thick to ensure an optimum connection.

1N5711, 1N5712, MADS-005711, MADS-005712



General Purpose Axial Lead Glass Packaged Schottky Diodes

Rev. V2

M/A-COM Technology Solutions Inc. All rights reserved.

Information in this document is provided in connection with M/A-COM Technology Solutions Inc ("MACOM") products. These materials are provided by MACOM as a service to its customers and may be used for informational purposes only. Except as provided in MACOM's Terms and Conditions of Sale for such products or in any separate agreement related to this document, MACOM assumes no liability whatsoever. MACOM assumes no responsibility for errors or omissions in these materials. MACOM may make changes to specifications and product descriptions at any time, without notice. MACOM makes no commitment to update the information and shall have no responsibility whatsoever for conflicts or incompatibilities arising from future changes to its specifications and product descriptions. No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted by this document.

THESE MATERIALS ARE PROVIDED "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, RELATING TO SALE AND/OR USE OF MACOM PRODUCTS INCLUDING LIABILITY OR WARRANTIES RELATING TO FITNESS FOR A PARTICULAR PURPOSE, CONSEQUENTIAL OR INCIDENTAL DAMAGES, MERCHANTABILITY, OR INFRINGEMENT OF ANY PATENT, COPYRIGHT OR OTHER INTELLECTUAL PROPERTY RIGHT. MACOM FURTHER DOES NOT WARRANT THE ACCURACY OR COMPLETENESS OF THE INFORMATION, TEXT, GRAPHICS OR OTHER ITEMS CONTAINED WITHIN THESE MATERIALS. MACOM SHALL NOT BE LIABLE FOR ANY SPECIAL, INDIRECT, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, INCLUDING WITHOUT LIMITATION, LOST REVENUES OR LOST PROFITS, WHICH MAY RESULT FROM THE USE OF THESE MATERIALS.

MACOM products are not intended for use in medical, lifesaving or life sustaining applications. MACOM customers using or selling MACOM products for use in such applications do so at their own risk and agree to fully indemnify MACOM for any damages resulting from such improper use or sale.