WINSOURCE ELECTRONICS

# THE DATASHEET OF

# BYG26D

**CMR1U-01M CMR1U-06M**
**CMR1U-02M CMR1U-10M**
**CMR1U-04M**

**SURFACE MOUNT SILICON**
**ULTRA FAST RECOVERY RECTIFIERS**
**1.0 AMP, 100 THRU 1000 VOLT**




**SMA CASE**

Central Semiconductor Corp.

www.centralsemi.com

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CMR1U-01M series 1.0 Amp surface mount Ultra Fast Recovery silicon rectifier is a highly reliable component designed for use in all types of commercial, industrial, entertainment, computer, and automotive applications where small size is required. The SMA case occupies 30% less board space than the SMB case.

**MARKING CODE: SEE MARKING CODE TABLE ON FOLLOWING PAGE**

**FEATURES:**

- High reliability
- Glass passivated chip
- Special selections available

**MAXIMUM RATINGS:** ($T_A$=25°C unless otherwise noted)

| | SYMBOL | CMR1U -01M | CMR1U -02M | CMR1U -04M | CMR1U -06M | CMR1U -10M | UNITS |
|---|---|---|---|---|---|---|---|
| Peak Repetitive Reverse Voltage | $V_{RRM}$ | 100 | 200 | 400 | 600 | 1000 | V |
| DC Blocking Voltage | $V_R$ | 100 | 200 | 400 | 600 | 1000 | V |
| RMS Reverse Voltage | $V_{R(RMS)}$ | 70 | 140 | 280 | 420 | 700 | V |
| Average Forward Current ($T_A$=75°C) | $I_O$ | | | 1.0 | | | A |
| Peak Forward Surge Current, tp=8.3ms | $I_{FSM}$ | | | 30 | | | A |
| Operating and Storage Junction Temperature | $T_J$, $T_{stg}$ | | | -65 to +175 | | | °C |
| Thermal Resistance | $\Theta_{JL}$ | | | 30 | | | °C/W |

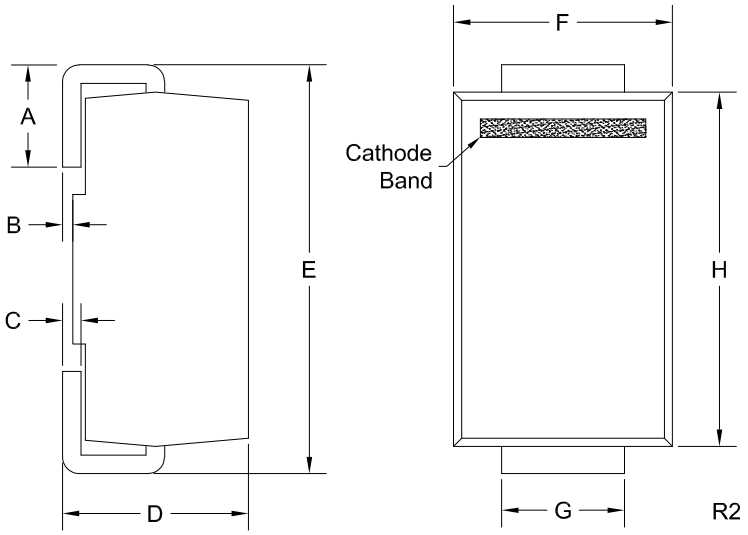
**ELECTRICAL CHARACTERISTICS:** ($T_A$=25°C unless otherwise noted)

| SYMBOL | TEST CONDITIONS | TYP | MAX | UNITS |
|---|---|---|---|---|
| $I_R$ | $V_R$=Rated $V_{RRM}$ | | 5.0 | μA |
| $V_F$ | $I_F$=1.0A, (CMR1U-01M, -02M) | | 1.00 | V |
| $V_F$ | $I_F$=1.0A, (CMR1U-04M) | | 1.25 | V |
| $V_F$ | $I_F$=1.0A, (CMR1U-06M) | | 1.40 | V |
| $V_F$ | $I_F$=1.0A, (CMR1U-10M) | | 1.70 | V |
| $t_{rr}$ | $I_F$=0.5A, $I_R$=1.0A, $I_{rr}$=0.25A (CMR1U-01M, -02M) | | 35 | ns |
| $t_{rr}$ | $I_F$=0.5A, $I_R$=1.0A, $I_{rr}$=0.25A (CMR1U-04M) | | 50 | ns |
| $t_{rr}$ | $I_F$=0.5A, $I_R$=1.0A, $I_{rr}$=0.25A (CMR1U-06M) | | 75 | ns |
| $t_{rr}$ | $I_F$=0.5A, $I_R$=1.0A, $I_{rr}$=0.25A (CMR1U-10M) | | 100 | ns |
| $t_{fr}$ | $I_F$=1.0A, $V_{fr}$=2.0V | 175 | 250 | ns |

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## SMA CASE - MECHANICAL OUTLINE




| DEVICE | MARKING CODE |
|---|---|
| CMR1U-01M | CU01M |
| CMR1U-02M | CU02M |
| CMR1U-04M | CU04M |
| CMR1U-06M | CU06M |
| CMR1U-10M | CU10M |

| DIMENSIONS | | | | |
|---|---|---|---|---|
| | INCHES | | MILLIMETERS | |
| SYMBOL | MIN | MAX | MIN | MAX |
| A | 0.030 | 0.060 | 0.76 | 1.52 |
| B | 0.004 | 0.008 | 0.10 | 0.20 |
| C | 0.006 | 0.012 | 0.15 | 0.30 |
| D | 0.078 | 0.103 | 1.98 | 2.62 |
| E | 0.188 | 0.220 | 4.78 | 5.59 |
| F | 0.090 | 0.115 | 2.29 | 2.92 |
| G | 0.050 | 0.070 | 1.27 | 1.78 |
| H | 0.157 | 0.181 | 3.99 | 4.60 |

SMA (REV: R2)

## OUTSTANDING SUPPORT AND SUPERIOR SERVICES

### PRODUCT SUPPORT

Central's operations team provides the highest level of support to insure product is delivered on-time.

- Supply management (Customer portals)
- Inventory bonding
- Consolidated shipping options
- Custom bar coding for shipments
- Custom product packing

### DESIGNER SUPPORT/SERVICES

Central's applications engineering team is ready to discuss your design challenges. Just ask.

- Free quick ship samples (2nd day air)
- Online technical data and parametric search
- SPICE models
- Custom electrical curves
- Environmental regulation compliance
- Customer specific screening
- Up-screening capabilities
- Special wafer diffusions
- PbSn plating options
- Package details
- Application notes
- Application and design sample kits
- Custom product and package development

### REQUESTING PRODUCT PLATING

1. If requesting Tin/Lead plated devices, add the suffix " TIN/LEAD" to the part number when ordering (example: 2N2222A TIN/LEAD).
2. If requesting Lead (Pb) Free plated devices, add the suffix " PBFREE" to the part number when ordering (example: 2N2222A PBFREE).

### CONTACT US

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## Optimize Your Supply Chain with WIN SOURCE Solutions

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- Shortage Management
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