

CMR3U-01M    CMR3U-06M  
 CMR3U-02M    CMR3U-10M  
 CMR3U-04M

**SURFACE MOUNT ULTRA FAST  
 RECOVERY SILICON RECTIFIER  
 3 AMP, 100 THRU 1000 VOLTS**



**SMB CASE**



[www.centrasemi.com](http://www.centrasemi.com)

#### DESCRIPTION:

The CENTRAL SEMICONDUCTOR CMR3U-01M Series 3.0 Amp Surface Mount Silicon Ultra Fast Recovery Rectifier is a high quality, well constructed, highly reliable component designed for use in all types of commercial, industrial, entertainment, computer, and automotive applications. To order devices on 12mm Tape and Reel (3000/13" Reel), add TR13 suffix to part number.

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

#### FEATURES:

- Low cost
- High reliability
- Glass passivated chip
- Special selections available
- Superior lot to lot consistency
- "C" bend construction provides strain relief when mounted on PC board

**MAXIMUM RATINGS:** ( $T_A=25^{\circ}\text{C}$  unless otherwise noted)

|                                                      | SYMBOL         | CMR3U<br>-01M | CMR3U<br>-02M | CMR3U<br>-04M | CMR3U<br>-06M | CMR3U<br>-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 ( $T_A=75^{\circ}\text{C}$ ) | $I_O$          |               |               | 3.0           |               |               | A                    |
| Peak Forward Surge Current, $t_p=8.3\text{ms}$       | $I_{FSM}$      |               |               | 100           |               |               | A                    |
| Operating and Storage Junction Temperature           | $T_J, T_{stg}$ |               |               | -65 to +175   |               |               | $^{\circ}\text{C}$   |
| Thermal Resistance                                   | $\Theta_{JL}$  |               |               | 30            |               |               | $^{\circ}\text{C/W}$ |

**ELECTRICAL CHARACTERISTICS:** ( $T_A=25^{\circ}\text{C}$  unless otherwise noted)

| SYMBOL   | TEST CONDITIONS                                                                 | MAX  | UNITS         |
|----------|---------------------------------------------------------------------------------|------|---------------|
| $I_R$    | $V_R=\text{Rated } V_{RRM}$                                                     | 5.0  | $\mu\text{A}$ |
| $I_R$    | $V_R=\text{Rated } V_{RRM}, T_A=100^{\circ}\text{C}$                            | 500  | $\mu\text{A}$ |
| $V_F$    | $I_F=3.0\text{A}$ (CMR3U-01M, -02M)                                             | 1.00 | V             |
| $V_F$    | $I_F=3.0\text{A}$ (CMR3U-04M)                                                   | 1.25 | V             |
| $V_F$    | $I_F=3.0\text{A}$ (CMR3U-06M)                                                   | 1.40 | V             |
| $V_F$    | $I_F=3.0\text{A}$ (CMR3U-10M)                                                   | 2.00 | V             |
| $t_{rr}$ | $I_F=0.5\text{A}, I_R=1.0\text{A}, I_{rr}=0.25\text{A}$ (CMR3U-01M, -02M, -04M) | 50   | ns            |
| $t_{rr}$ | $I_F=0.5\text{A}, I_R=1.0\text{A}, I_{rr}=0.25\text{A}$ (CMR3U-06M, -10M)       | 100  | ns            |

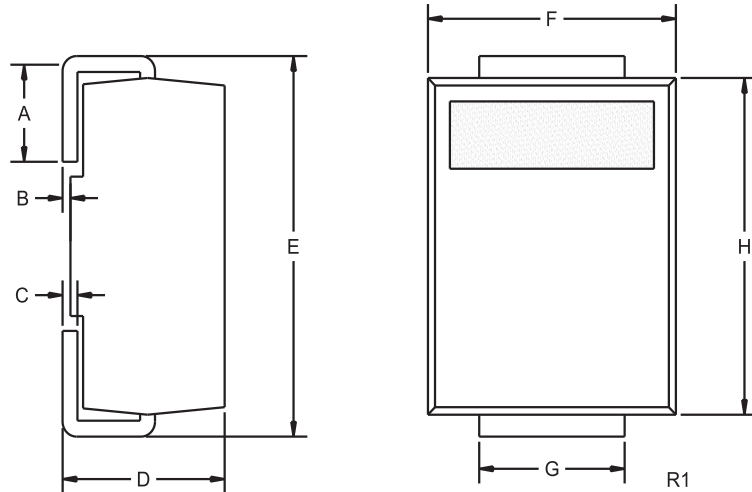
R3 (8-February 2010)

CMR3U-01M    CMR3U-06M  
 CMR3U-02M    CMR3U-10M  
 CMR3U-04M



**SURFACE MOUNT ULTRA FAST  
 RECOVERY SILICON RECTIFIER  
 3 AMP, 100 THRU 1000 VOLTS**

**SMB CASE - MECHANICAL OUTLINE**



| DEVICE    | MARKING CODE |
|-----------|--------------|
| CMR3U-01M | CU301M       |
| CMR3U-02M | CU302M       |
| CMR3U-04M | CU304M       |
| CMR3U-06M | CU306M       |
| CMR3U-10M | CU310M       |

| DIMENSIONS |        |       |             |      |
|------------|--------|-------|-------------|------|
| SYMBOL     | INCHES |       | MILLIMETERS |      |
|            | 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          | 0.086  | 0.096 | 2.18        | 2.44 |
| E          | 0.200  | 0.220 | 5.08        | 5.59 |
| F          | 0.130  | 0.150 | 3.30        | 3.81 |
| G          | 0.077  | 0.083 | 1.96        | 2.11 |
| H          | 0.160  | 0.180 | 4.06        | 4.57 |

SMB (REV: R1)

R3 (8-February 2010)

## 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 (2<sup>nd</sup> 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

---

### CONTACT US

#### Corporate Headquarters & Customer Support Team

Central Semiconductor Corp.  
145 Adams Avenue  
Hauppauge, NY 11788 USA  
Main Tel: (631) 435-1110  
Main Fax: (631) 435-1824  
Support Team Fax: (631) 435-3388  
[www.centrasemi.com](http://www.centrasemi.com)

#### Worldwide Field Representatives:

[www.centrasemi.com/wwreps](http://www.centrasemi.com/wwreps)

#### Worldwide Distributors:

[www.centrasemi.com/wwdistributors](http://www.centrasemi.com/wwdistributors)

---

For the latest version of Central Semiconductor's **LIMITATIONS AND DAMAGES DISCLAIMER**, which is part of Central's Standard Terms and Conditions of sale, visit: [www.centrasemi.com/terms](http://www.centrasemi.com/terms)

## Данный компонент на территории Российской Федерации

**Вы можете приобрести в компании MosChip.**

Для оперативного оформления запроса Вам необходимо перейти по данной ссылке:

<http://moschip.ru/get-element>

Вы можете разместить у нас заказ для любого Вашего проекта, будь то серийное производство или разработка единичного прибора.

В нашем ассортименте представлены ведущие мировые производители активных и пассивных электронных компонентов.

Нашей специализацией является поставка электронной компонентной базы двойного назначения, продукции таких производителей как XILINX, Intel (ex.ALTERA), Vicor, Microchip, Texas Instruments, Analog Devices, Mini-Circuits, Amphenol, Glenair.

Сотрудничество с глобальными дистрибьюторами электронных компонентов, предоставляет возможность заказывать и получать с международных складов практически любой перечень компонентов в оптимальные для Вас сроки.

На всех этапах разработки и производства наши партнеры могут получить квалифицированную поддержку опытных инженеров.

Система менеджмента качества компании отвечает требованиям в соответствии с ГОСТ Р ИСО 9001, ГОСТ РВ 0015-002 и ЭС РД 009

### Офис по работе с юридическими лицами:

105318, г.Москва, ул.Щербаковская д.3, офис 1107, 1118, ДЦ «Щербаковский»

Телефон: +7 495 668-12-70 (многоканальный)

Факс: +7 495 668-12-70 (доб.304)

E-mail: [info@moschip.ru](mailto:info@moschip.ru)

Skype отдела продаж:

moschip.ru

moschip.ru\_4

moschip.ru\_6

moschip.ru\_9