

**CBR1F SERIES
CBR2F SERIES**

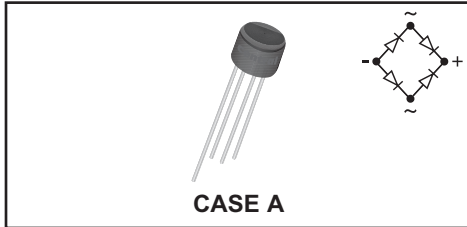
**FAST RECOVERY
SILICON BRIDGE RECTIFIERS**



www.centrasemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CBR1F and CBR2F series types are silicon, single phase, full wave bridge rectifiers designed for fast switching applications.



MARKING: FULL PART NUMBER

MAXIMUM RATINGS: ($T_A=50^\circ\text{C}$)

| | SYMBOL | CBR1F CBR2F | CBR1F CBR2F | CBR1F CBR2F | CBR1F CBR2F | CBR1F CBR2F | CBR1F CBR2F | UNITS |
|---|----------------|----------------|----------------|----------------|----------------|----------------|----------------|------------------|
| Peak Repetitive Reverse Voltage | V_{RRM} | <u>-010</u> | <u>-020</u> | <u>-040</u> | <u>-060</u> | <u>-080</u> | <u>-100</u> | V |
| DC Blocking Voltage | V_R | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| RMS Reverse Voltage | $V_{R(RMS)}$ | 70 | 140 | 280 | 420 | 560 | 700 | V |
| Average Forward Current (CBR1F) | I_O | | | | 1.5 | | | A |
| Average Forward Current (CBR2F) | I_O | | | | 2.0 | | | A |
| Peak Forward Surge Current (CBR1F) | I_{FSM} | | | | 50 | | | A |
| Peak Forward Surge Current (CBR2F) | I_{FSM} | | | | 60 | | | A |
| Operating and Storage Junction Temperature | T_J, T_{stg} | | | | -65 to +150 | | | $^\circ\text{C}$ |

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

| SYMBOL | TEST CONDITIONS | MIN | MAX | UNITS |
|-----------------------------|---|-----|-----|---------------|
| I_R | $V_R = \text{Rated } V_{RRM}$ | | 10 | μA |
| I_R | $V_R = \text{Rated } V_{RRM}, T_A = 100^\circ\text{C}$ | | 1.0 | mA |
| V_F (CBR1F) | $I_F = 1.0\text{A}$ | | 1.3 | V |
| V_F (CBR2F) | $I_F = 2.0\text{A}$ | | 1.3 | V |
| t_{rr} (100V, 200V, 400V) | $I_F = 0.5\text{A}, I_R = 1.0\text{A}, I_{rr} = 0.25\text{A}$ | | 200 | ns |
| t_{rr} (600V, 800V) | $I_F = 0.5\text{A}, I_R = 1.0\text{A}, I_{rr} = 0.25\text{A}$ | | 350 | ns |
| t_{rr} (1000V) | $I_F = 0.5\text{A}, I_R = 1.0\text{A}, I_{rr} = 0.25\text{A}$ | | 500 | ns |

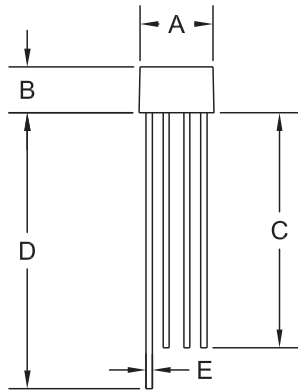
R1 (18-June 2013)

CBR1F SERIES
CBR2F SERIES

FAST RECOVERY
SILICON BRIDGE RECTIFIERS



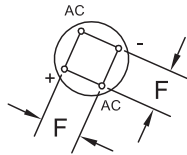
CASE A - MECHANICAL OUTLINE



| SYMBOL | DIMENSIONS | | | |
|--------|------------|-------|-------------|------|
| | INCHES | | MILLIMETERS | |
| | MIN | MAX | MIN | MAX |
| A | 0.299 | 0.370 | 7.6 | 9.4 |
| B | 0.197 | 0.220 | 5.0 | 5.6 |
| C | 1.00 | - | 25.4 | - |
| D | 1.10 | - | 27.9 | - |
| E | 0.028 | 0.032 | 0.70 | 0.81 |
| F | 0.181 | 0.220 | 4.6 | 5.6 |

CASE A (REV:R1)

MARKING:
FULL PART NUMBER



R1

R1 (18-June 2013)