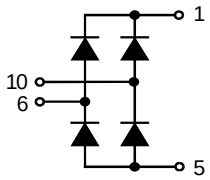
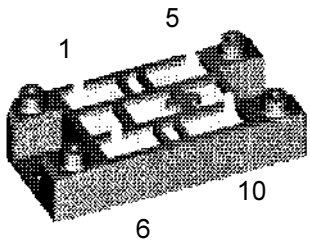
# Single Phase Rectifier Bridge

with Fast Recovery Epitaxial Diodes (FRED)

$I_{dAV}$ = 20 A
$V_{RRM}$ = 2000 V
$t_{rr}$ = 70 ns

| $V_{RSM}$ V | $V_{RRM}$ V | Type |
|---|---|---|
| 2000 | 2000 | VBE 20-20NO1 |




| Symbol | Conditions | | Maximum Ratings | |
|---|---|---|---|---|
| $I_{dAV}$ | $T_C$ = 65°C, module | | 20 | A |
| $I_{FSM}$ | $T_{VJ}$ = 45°C; $V_R$ = 0 | t = 10 ms (50 Hz), sine | 75 | A |
| | $T_{VJ} = T_{VJM}$ $V_R$ = 0 | t = 10 ms (50 Hz), sine | 65 | A |
| $I^2dt$ | $T_{VJ}$ = 45°C $V_R$ = 0 | t = 10 ms (50 Hz), sine | 28 | $A^2s$ |
| | $T_{VJ} = T_{VJM}$ $V_R$ = 0 | t = 10 ms (50 Hz), sine | 21 | $A^2s$ |
| $T_{VJ}$ | | | -40...+150 | °C |
| $T_{VJM}$ | | | 150 | °C |
| $T_{stg}$ | | | -40...+125 | °C |
| $V_{ISOL}$ | 50/60 Hz, RMS | t = 1 min | 3000 | V~ |
| | $I_{ISOL} \leq$ 1 mA | t = 1 s | 3600 | V~ |
| $M_d$ | Mounting torque (M5) | | 2 - 2.5 | Nm |
| | | (10-32UNF) | 18 - 22 | lb.in. |
| Weight | typ. | | 35 | g |

| Symbol | Conditions | | Characteristic Values typ. | max | |
|---|---|---|---|---|---|
| $I_R$ | $V_R = V_{RRM}$ | $T_{VJ}$ = 25°C | | 0.75 | mA |
| | $V_R$ = 0.8 $V_{RRM}$ | $T_{VJ}$ = 125°C | 4 | 7 | mA |
| $V_F$ | $I_F$ = 12 A | $T_{VJ}$ = 25°C | | 5.41 | V |
| $V_{T0}$ | For power-loss calculations only | | | 3.3 | V |
| $r_T$ | | | | 93 | mΩ |
| $R_{thJC}$ | per diode, DC | | | 1.7 | K/W |
| $R_{thCH}$ | | | 0.3 | | K/W |
| $I_{RM}$ | $I_F$ = 12 A, -$di_F$/dt = 100 A/ms $V_R$ = 540 V, L ≤ 0.05 mH, $T_{VJ}$ = 100°C | | 9 | 12 | A |
| $t_{rr}$ | $I_F$ = 1 A; -di/dt = 100 A/ms; $V_R$ = 30 V, $T_{VJ}$ = 25°C | | 70 | 90 | ns |
| $d_S$ | Creeping distance on surface | | | 12.7 | mm |
| $d_A$ | Creepage distance in air | | | 9.4 | mm |
| a | Max. allowable acceleration | | | 50 | $m/s^2$ |

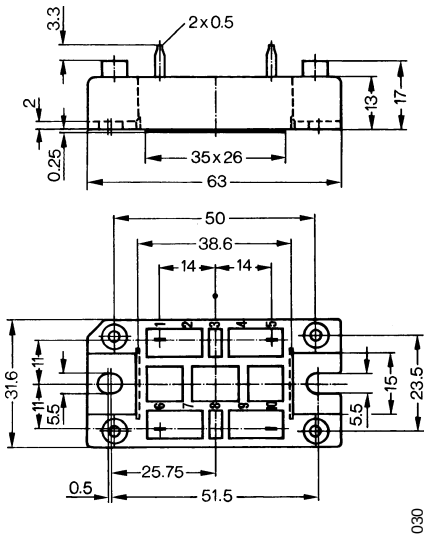
Data according to IEC 60747 and refer to a single diode unless otherwise stated.

**Features**
- Package with DCB ceramic base plate
- Isolation voltage 3600 V~
- Planar passivated chips
- Leads suitable for PC board soldering
- Creeping and creepage-distance fulfil UL 508/CSA 22.2NO14 and VDE 0160 requirements
- Epoxy meets UL94V-O
- UL listing applied for

**Applications**
- Supplies for DC power equipment
- Input rectifiers for PWM inverter
- Output filter for PWM inverter

**Advantages**
- Reduced EMI/RFI
- Easy to mount with two screws
- Space and weight savings
- Improved temperature and power cycling

**Dimensions in mm (1 mm = 0.0394")**




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