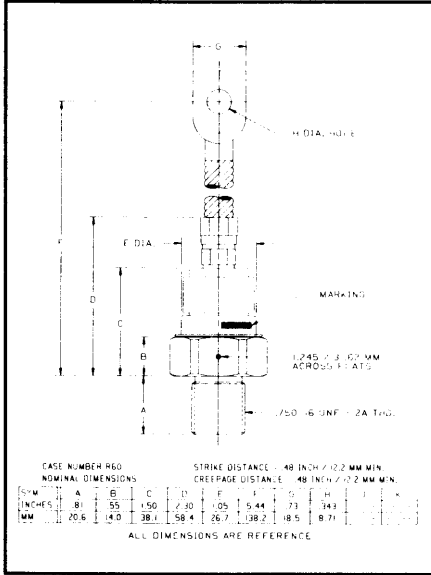
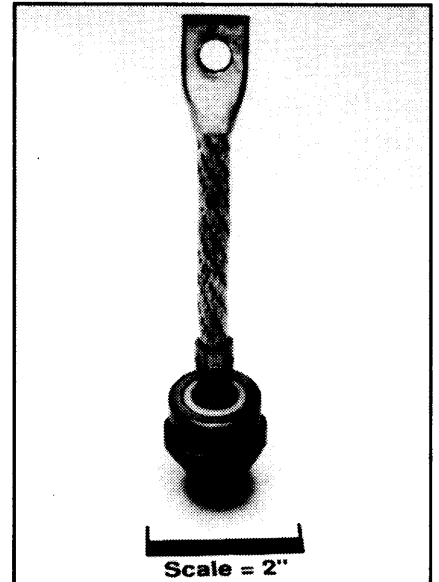
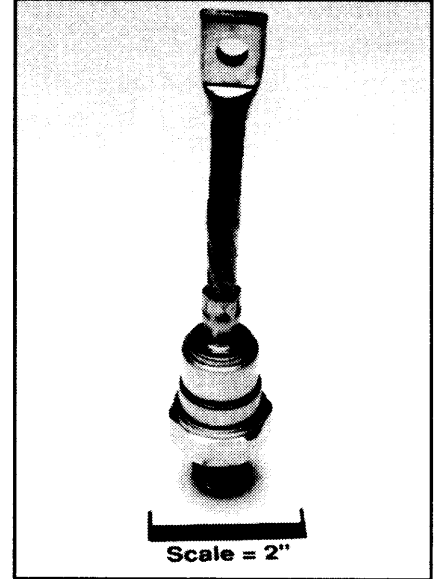
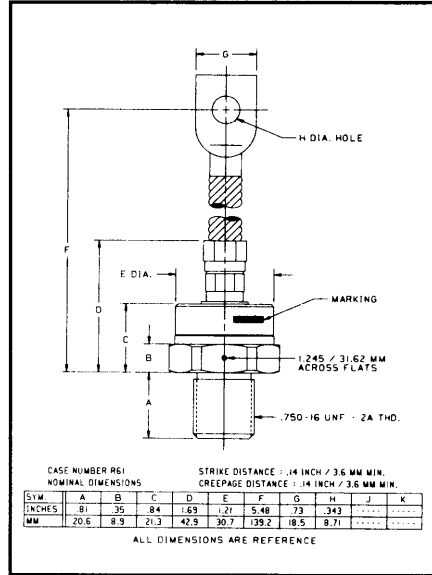


Powerex, Inc., 200 Hillis Street, Youngwood, Pennsylvania 15697-1800 (412) 925-7272  
Powerex, Europe, S.A. 428 Avenue G. Durand, BP107, 72003 Le Mans, France (43) 41.14.14

**General Purpose  
Rectifier**  
160 Amperes Average  
1600 Volts



IN3260, R - IN3276, R (Outline Drawing)



IN3260, R - IN3276, R  
General Purpose Rectifier  
160 Amperes Average,  
1600 Volts

### Ordering Information:

Select the complete six digit part number you desire from the table, i.e. IN3276 is a 1600 Volt, 160 Ampere General Purpose Rectifier.

| Type   | Voltage                                       | Current                   |
|--------|---|---------------------------|
|        | V <sub>DRM</sub> /V <sub>RRM</sub><br>(Volts) | I <sub>F(av)</sub><br>(A) |
| IN3260 | 50  | 160                       |
| IN3261 | 100   |                           |
| IN3262 | 150   |                           |
| IN3263 | 200   |                           |
| IN3264 | 250   |                           |
| IN3265 | 300   |                           |
| IN3266 | 350   |                           |
| IN3267 | 400   |                           |
| IN3268 | 500   |                           |
| IN3269 | 600   |                           |
| IN3270 | 700   |                           |
| IN3271 | 800   |                           |
| IN3272 | 900   |                           |
| IN3273 | 1000  |                           |
| IN3274 | 1200  |                           |
| IN3275 | 1400  |                           |

### Features:

- Standard and Reverse Polarities with Color Coded Seals
- High Surge Current Ratings
- Electrical Selection for Parallel and Series Operation
- Compression Bonded Encapsulation

### Applications:

- Welders
- Battery Chargers
- Electrochemical Refining
- Metal Reduction
- General Industrial High Current Rectification

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**IN3260,R - IN3276,R**  
**General Purpose Rectifier**  
160 Ampere Average, 1600 Volts

## Absolute Maximum Ratings

| Characteristics                                   | Symbol       | IN3260,R - IN3276,R | Units              |
|---|--------------|---------------------|--------------------|
| RMS Forward Current                               | $I_{F(rms)}$ | 250                 | Amperes            |
| Maximum Average Forward Current                   | $I_{F(av)}$  | 160                 | Amperes            |
| One-half Cycle Surge Current (at 60Hz Under Load) | $I_{FSM}$    | 2000                | Amperes            |
| $I^2t$ (for Fusing), (at 60Hz Half-wave)          | $I^2t$       | 16700               | A <sup>2</sup> sec |
| Storage Temperature                               | $T_{stg}$    | -65 to +190         | °C                 |
| Operating Temperature                             | $T_j$        | -65 to +175         | °C                 |
| Mounting Torque (Lubricated)                      |              | 360                 | in-lb              |



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IN3260,R - IN3276,R  
 General Purpose Rectifier  
 160 Ampere Average, 1600 Volts

### Electrical and Thermal Characteristics

| Characteristics   | Symbol            | IN3260           | IN3261 | IN3262 | IN3263 | IN3264 | IN3265 | IN3266 | IN3267 | IN3268 | Units                 |
|---|-------------------|------------------|--------|--------|--------|--------|--------|--------|--------|--------|-----------------------|
| <b>Current - Conducting State Maximums, <math>T_j = 200^\circ\text{C}</math></b>                |                   |                  |        |        |        |        |        |        |        |        |                       |
| Max. Reverse Current at Rated $V_{RRM}$<br>160A Avg. Forward Current, $T_j = 190^\circ\text{C}$ | $I_{R(av)}$       | 12 (All Types)   |        |        |        |        |        |        |        |        | mA                    |
| <b>Voltage - Blocking State Maximums</b>  |                   |                  |        |        |        |        |        |        |        |        |                       |
| Repetitive Peak Reverse Voltage   | $V_{RRM}$         | 50               | 100    | 150    | 200    | 250    | 300    | 350    | 400    | 500    | Volts                 |
| Non-rep. Trans. Peak Rev. Voltage   | $V_{RSM}$         | 100              | 200    | 250    | 300    | 350    | 400    | 450    | 525    | 650    | Volts                 |
| Max. Allowable d-c Blocking Voltage   | $V_R$             | 40               | 80     | 120    | 160    | 200    | 240    | 280    | 320    | 400    | Volts                 |
| <b>Thermal</b>  |                   |                  |        |        |        |        |        |        |        |        |                       |
| Maximum Resistance, Junction to Case  | $R_{\theta(j-c)}$ | 0.30 (All Types) |        |        |        |        |        |        |        |        | $^\circ\text{C/Watt}$ |
| Maximum Resistance, Case to Sink (Lubricated)   | $R_{\theta(c-s)}$ | 0.15 (All Types) |        |        |        |        |        |        |        |        | $^\circ\text{C/Watt}$ |

### Electrical and Thermal Characteristics

| Characteristics   | Symbol            | IN4569           | IN3270 | IN3271 | IN3272 | IN3273 | IN3274* | IN3275* | IN3276* | Units |                       |
|---|-------------------|------------------|--------|--------|--------|--------|---------|---------|---------|-------|-----------------------|
| <b>Current - Conducting State Maximums, <math>T_j = 200^\circ\text{C}</math></b>                |                   |                  |        |        |        |        |         |         |         |       |                       |
| Max. Reverse Current at Rated $V_{RRM}$<br>160A Avg. Forward Current, $T_j = 190^\circ\text{C}$ | $I_{R(av)}$       | 12 (All Types)   |        |        |        |        |         |         |         |       | mA                    |
| <b>Voltage - Blocking State Maximums</b>  |                   |                  |        |        |        |        |         |         |         |       |                       |
| Repetitive Peak Reverse Voltage   | $V_{RRM}$         | 600              | 700    | 800    | 900    | 1000   | 1200    | 1400    | 1600    | Volts |                       |
| Non-rep. Trans. Peak Rev. Voltage   | $V_{RSM}$         | 800              | 925    | 1050   | 1175   | 1300   | 1600    | 1800    | 2000    | Volts |                       |
| Max. Allowable d-c Blocking Voltage   | $V_R$             | 480              | 560    | 640    | 720    | 800    | 960     | 1120    | 1280    | Volts |                       |
| <b>Thermal</b>  |                   |                  |        |        |        |        |         |         |         |       |                       |
| Maximum Resistance, Junction to Case  | $R_{\theta(j-c)}$ | 0.30 (All Types) |        |        |        |        |         |         |         |       | $^\circ\text{C/Watt}$ |
| Maximum Resistance, Case to Sink (Lubricated)   | $R_{\theta(c-s)}$ | 0.15 (All Types) |        |        |        |        |         |         |         |       | $^\circ\text{C/Watt}$ |

\*Ceramic Seal Supplied

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**General Purpose Rectifier**  
 160 Ampere Average, 1600 Volts

### Electrical Characteristics



Figure 1. Forward current vs. forward voltage.



Figure 2. Maximum allowable surge current at rated load conditions.



Figure 3. Power dissipation vs. average forward current.



Figure 4. Forward current vs. case temperature.

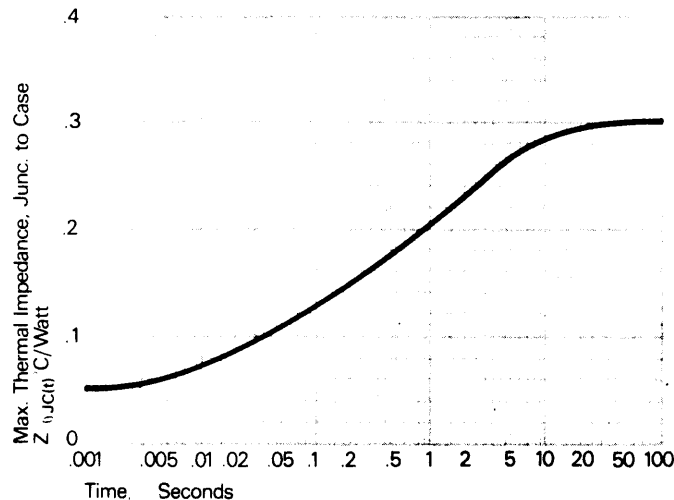


Figure 5. Transient thermal impedance versus time.