The A540 Series of high power rectifier diodes feature the newly developed, multi-diffusion technology in a new General Electric pressure-mounted package.

FEATURES:
- High Current, High Voltage
- Pressure Contacts
- Glazed Ceramic Package with 1” Creepage Path
- Reversibility (eliminates need for special reverse polarity units)
- Hermetic Seal
- Available in Factory Assembled Heat Exchangers or Ready-to-Mount

IMPORTANT: Mounting instructions on the last page of the C501 specification must be followed.

MAXIMUM ALLOWABLE RATINGS

<table>
<thead>
<tr>
<th>TYPE</th>
<th>REPETITIVE PEAK REVERSE VOLTAGE, $V_{RRM}$</th>
<th>NON-REPETITIVE REVERSE VOLTAGE, $V_{RSM}$</th>
<th>$V_{RRM}/V_{RSM}$</th>
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<tbody>
<tr>
<td>A540LD</td>
<td>2400 Volts</td>
<td>2500 Volts</td>
<td>2000 Volts</td>
</tr>
<tr>
<td>A540LC</td>
<td>2300</td>
<td>2400</td>
<td>1950</td>
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<tr>
<td>A540LB</td>
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<td>2300</td>
<td>1850</td>
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<td>A540LA</td>
<td>2100</td>
<td>2200</td>
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<tr>
<td>A540L</td>
<td>2000</td>
<td>2100</td>
<td>1700</td>
</tr>
</tbody>
</table>

Lower voltages available — consult factory.

Average Forward Current ................................................................. .1000 Amperes, 1Φ Average
Peak One-Cycle Surge Current ....................................................... 12,000 Amperes
Minimum $I^2t$ Rating (for times ≥ 1.5 msec) ................................ 285,000 Ampere$^2$ Seconds
Minimum $I^2t$ Rating (at 8.3 msec) ............................................. 597,000 Ampere$^2$ Seconds
Maximum Forward Voltage Drop ($T_C = 160^\circ C$ Case Temperature, 1000 Amps. Peak) .................................................... 1.08 Volts
Peak Reverse Leakage Current ($T_J = 200^\circ C$, $V = $ Rated $V_{RRM}$) .................................................... 35mA
Maximum Thermal Resistance, $R_{JS}$ (Double-Side Cooling) .............. 0.06°C/Watt
Storage Temperature, $T_{STG}$ .......................................................... $-40^\circ C$ to $+200^\circ C$
Operating Junction Temperature, $T_J$ ............................................... $-40^\circ C$ to $+200^\circ C$
Mounting Force Required ................................................................. 2200 Lbs, ± 10%

9.8 KN ± 10%

NOTES:
1 Assumes a heatsink thermal resistance of less than 1.1°C/watt.
2 Non-recurrent voltage and current ratings, as contrasted to repetitive ratings which apply for occasional or unpredictable overloads. For example, the forward surge current ratings are non-recurrent ratings that are used in fault coordination work.
1. MAXIMUM ON-STATE CHARACTERISTICS

2. AVERAGE FORWARD POWER DISSIPATION VERSUS AVERAGE FORWARD CURRENT

3. MAXIMUM HEAT EXCHANGER TEMPERATURE VERSUS AVERAGE FORWARD CURRENT FOR DOUBLE-SIDE COOLING

NOTES:
1. Power "D" adds .01°C/W to account for both case to dissipator interfaces, when properly mounted; e.g., \( R_{\theta,ja} = .05°C/W \). See Mounting Instructions.
2. DC Thermal Impedance is based on average full cycle junction temperature. Instantaneous junction temperature may be calculated using the following modifications.
   - end of conducting portion of cycle:
     - 120° square wave: add .0065°C/W along entire curve
     - 180° square wave: add .0047°C/W along entire curve
     - 180° sine wave: add .0026°C/W along entire curve
   - end of full cycle:
     - any wave: subtract .0026°C/W along entire curve

4. TRANSIENT THERMAL IMPEDANCE - JUNCTION-TO-CASE
5. MAXIMUM SURGE CURRENT FOLLOWING RATED LOAD CONDITIONS

6. SUBCYCLE PEAK SURGE FORWARD CURRENT AND $I^2t$ RATING FOLLOWING RATED LOAD CONDITIONS

OUTLINE DRAWING

<table>
<thead>
<tr>
<th>SYMBOL</th>
<th>INCHES</th>
<th>MILLIMETERS</th>
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</thead>
<tbody>
<tr>
<td>a</td>
<td>Min</td>
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<tr>
<td>g</td>
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NOTE:
- Glazed ceramic insulator with 0.02 inch min. surface creepage (25-40 mm)