

| Component Type                 | Derating Value   |
|--------------------------------|--|
| <b>Connector</b>               |  |
| All Connectors                 | Pin Current = 75% of I <sub>max</sub><br>Pin-Pin Voltage = 75% of V <sub>max</sub><br>Temp = T <sub>max</sub> - 25°C   |
| <b>Capacitors</b>              |  |
| Film                           | Voltage = 60% of V <sub>max</sub><br>Temp = T <sub>max</sub> 105°C   |
| Ceramic                        | Voltage = 60% of V <sub>max</sub><br>Temp = T <sub>max</sub> 105°C   |
| Tantalum                       | Foil Voltage = 50% of V <sub>max</sub><br>Wet Slug Voltage = 40% of V <sub>max</sub><br>Solid Voltage = 30% of V <sub>max</sub><br>Temp = T <sub>max</sub> 105°C |
| <b>Resistors</b>               |  |
| Film / Wirewound               | Power = 70% of Power Rating @ max temp   |
| <b>Magnetics</b>               |  |
| Transformer                    | I = 80% of I <sub>max</sub><br>V = 50% of V <sub>max</sub><br>Temp = Wire Temp 130°C max   |
| Inductor                       | I = 80% of I <sub>max</sub><br>V = 50% of V <sub>acmax</sub>   |
| <b>Discrete Semiconductors</b> |  |
| Rectifier                      | Junction Temp = T <sub>jmax</sub> *.8<br>Forward Current = 50% of I <sub>max</sub><br>Surge Current = 85% of I <sub>max</sub><br>PIV = 70% of V <sub>max</sub>   |
|                                | Junction Temp = T <sub>jmax</sub> *.8  |

|                            |  |
|----------------------------|--|
| Zener                      | Power Dissipation = 50% of Pmax<br>I = 75% of Imax   |
| Transient Suppressor       | Junction Temp = Tjmax*.8<br>Power Dissipation = 80% of max power for transient conditions                |
| Bipolar Transistor         | Junction Temp = Tjmax *.8<br>VCE = 50% of VCEmax   |
| MOSFET                     | Junction Temp = Tjmax*.8   |
| <b>Integrated Circuits</b> |  |
| Linear IC's                | Junction Temp = Tjmax*.75<br>Iout = 80% of Imax  |
| Digital IC's               | Junction Temp = Tjmax*.75<br>Iout = 80% of Imax<br>Clock Frequency= 80% of rated speed where applicable. |
| <b>Crystal Oscillators</b> |  |
| Crystal Oscillators        | Junction Temp = Tjmax*.75<br>Iout = 80% of Imax  |