**Description**

This new line of High Speed GaAs Schottky Diodes provide extremely fast recovery times, outperforming both Ultrafast and Silicon Carbide technologies. The recovery times and low junction capacitances combined with their inherently low forward voltages make this new product family ideal for High Frequency Converters, Resonant Converters and Switch Mode Power Supplies operating from the KHz-MHz range.

The GaAs devices are packaged in the low inductance, low profile, electrically isolated, surface mount DE-150 package. The matched thermal coefficient of expansion between the aluminum nitride substrate and the GaAs Diode result in improved reliability and power cycling performance.

The GaAs Schottky products have an added advantage when used in conjunction with the DE Series Switch Mode & RF Mosfets. Both products utilize the same package profiles resulting in a convenient single plane to heat sink.

Each device contains three diodes, with three different configuration options; Triple Independent, Triple Common Cathode, and Triple Common Anode.

**Advantages**

- Extremely Fast Reverse Recovery Times, Typically <15nS
- Much lower forward Voltage than Silicon Carbide
- Isolated, low inductance, surface mount, high power package

**SUMMARY TABLE - GaAs SCHOTTKY**

<table>
<thead>
<tr>
<th>Part Type</th>
<th>$V_{RRM}$</th>
<th>$I_{D(25)}$</th>
<th>$C_{JUNCTION}$</th>
<th>$V_{F(IF=2A)}$</th>
<th>$P_{TOT(25)}$</th>
<th>$R_{THJC}$</th>
</tr>
</thead>
<tbody>
<tr>
<td>*GS150T_25104</td>
<td>250 V</td>
<td>4 A</td>
<td>9pF</td>
<td>1.5V</td>
<td>9 W</td>
<td>16.3 C/W</td>
</tr>
<tr>
<td>*GS150T_25110</td>
<td>250 V</td>
<td>10 A</td>
<td>18pF</td>
<td>1.5V</td>
<td>15 W</td>
<td>9.6 C/W</td>
</tr>
<tr>
<td>*GS150T_25120</td>
<td>250 V</td>
<td>20 A</td>
<td>36pF</td>
<td>1.5V</td>
<td>20 W</td>
<td>7.2 C/W</td>
</tr>
<tr>
<td>*GS150T_25150</td>
<td>250 V</td>
<td>50 A</td>
<td>TBD</td>
<td>TBD</td>
<td>TBD</td>
<td>TBD</td>
</tr>
</tbody>
</table>

*Three configuration options available: TI - Triple Independent, TC - Triple Common Cathode, TA - Triple Common Anode
Example: GS150T125104 - The Triple Independent version.*
PART NUMBER GUIDE
EXAMPLE: GS150TI25104

GaAs SCHOTTKY

DE150 PACKAGE

TRIPLE INDEPENDENT CONFIGURATION

250V BREAK DOWN

04 AMP (ADDITIONAL DIGIT ADDED FOR >99 AMPS)

A1 A2 A3

C1 C2 C3

TRIPLE INDEPENDENT (TI)

TRIPLE COMMON CATHODE (TC)

TRIPLE COMMON ANODE (TA)

GaAs RF GaAs

Silicon Carbide

Silicon Shottky

PIN

REVERSE RECOVERY
5A forward Current, di/dt of 150 A/usec, Vf = 100V