Thin Film Limiter Module
5 to 3000 MHz

Features
- VOLTAGE VARIABLE LIMITING LEVEL: -10 TO 0 dBm
- LOW INSERTION LOSS AT LOW INPUT LEVELS: < 2.0 dB (TYP.)
- GOOD SUPPRESSION OF EVEN ORDER HARMONICS DUE TO BALANCED CIRCUIT DESIGN
- EXCELLENT PHASE RESPONSE 0.3 DEGREE / dB TO 160 MHz (TYP.)

Description
The L1 signal limiter is a discrete hybrid design, which uses thin film manufacturing processes for accurate performance and high reliability. This design uses Schottky bridge quad and anti-parallel diodes, which provide consistent limiting levels over a broadband frequency range. Both TO-8 and SMTO-8 packages are hermetically sealed, and MIL-STD-883 environmental screening is available.

Ordering Information

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Package</th>
</tr>
</thead>
<tbody>
<tr>
<td>L1</td>
<td>TO-8</td>
</tr>
<tr>
<td>SML1</td>
<td>Surface Mount</td>
</tr>
<tr>
<td>CL1 **</td>
<td>SMA Connectorized</td>
</tr>
</tbody>
</table>

** The connectorized version is not RoHs compliant.

Electrical Specifications: $Z_0 = 50\,\Omega$, $V_{CC} = +15\,V_{DC}$

### Limiting and Insertion Loss Characteristics at +25°C

<table>
<thead>
<tr>
<th>Bias Voltage</th>
<th>Output Level at Limiting Threshold (1 dB comp.)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>50 MHz</td>
</tr>
<tr>
<td>+20 Volts</td>
<td>-0.8 dBm</td>
</tr>
<tr>
<td>+15 Volts</td>
<td>-2.0 dBm</td>
</tr>
<tr>
<td>+10 Volts</td>
<td>-4.5 dBm</td>
</tr>
<tr>
<td>+5 Volts</td>
<td>-11.5 dBm</td>
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</tbody>
</table>
Typical Performance Curves at +25°C

- Insertion Loss
- Input VSWR vs. Frequency
- Output VSWR vs. Frequency
- Output Power*
- Phase Shift vs. Input Power

*at 1 dB Compression
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Typical Performance Curves at +25°C

Outline Drawing: TO-8 *

Outline Drawing: Surface Mount *

Outline Drawing: SMA Connectorized *

WEIGHT: 1 gram (0.04 oz.) max

WEIGHT: 19 grams (0.67 oz.) max

* Dimensions are inches (millimeters) ±0.015 (0.38) unless otherwise specified.