PMI MODEL LM-10M2D5G-100CW-1KWP-SFF IS A RF LIMITER THAT OPERATES IN THE 10MHz TO 2.5GHz FREQUENCY RANGE. THIS LIMITER CAN HANDLE 100W CW AND 1KW PEAK (1% DUTY CYCLE, 1USEC MAXIMUM PULSE WIDTH) INPUT POWER AND PROVIDES A MAXIMUM LEAKAGE OF +14DBM AT 10DBM CW INPUT. THIS MODEL HAS A LOW INSERTION LOSS OF 0.5DB AND A RECOVERY TIME OF 2USEC TYPICAL.
DESCRIPTION

PMI MODEL LM-10M2D5G-100CW-1KWP-SFF IS A RF LIMITER THAT OPERATES IN THE 10MHz TO 2.5GHz FREQUENCY RANGE. THIS LIMITER CAN HANDLE 100W CW AND 1KW PEAK (1% DUTY CYCLE, 1USEC MAXIMUM PULSE WIDTH) INPUT POWER AND PROVIDES A MAXIMUM LEAKAGE OF 14dBM MAXIMUM AT 10W CW INPUT. THIS MODEL HAS A LOW INSERTION LOSS OF 0.5dB AND A RECOVER TIME OF 2USEC TYPICAL.

SPECIFICATIONS

- FREQUENCY RANGE: 10 MHz TO 2.5GHz
- INSERTION LOSS: 0.5dB TYPICAL
- INPUT/OUTPUT VSWR: 1:3.1 MAXIMUM (AT -10dBm INPUT)
- IMPEDANCE: 50 OHMS
- INPUT POWER: 100 WATTS CW MAXIMUM (NOTES 1, 2)
- MAXIMUM FLAT LEAKAGE: -14dBm MAXIMUM AT 10W CW
- Power 5dBm MINIMUM
- RECOVERY TIME: 2USEC TYPICAL
- OPTION: HERMETIC OR NOT HERMETIC SEALING AVAILABLE
- FINSISHED: GOLD PLATED

NOTES:
1. POWER RATING AT 25°C. DERATED LINEARLY TO ZERO AT 150°C.
2. HIGH POWER TEST DURATION: FULL RATED POWER FOR 10 SECONDS
3. HIGH POWER PEAK CONDITIONS: 1KW PEAK (1% DUTY CYCLE, 1USEC MAXIMUM PULSE WIDTH)
4. EXTERNAL DC BLOCKS ARE REQUIRED FOR PROPER FUNCTION.

ENVIRONMENTAL RATINGS

- TEMPERATURE: -55°C TO +85°C (OPERATING)
- STABILIZATION RATE: MIL-STD-883, METHOD 1006, TEST COND. B
- THERMAL CYCLE: MIL-STD-883, METHOD 1010, TEST COND. B
- CONSTANT ACCELERATION: MIL-STD-883, METHOD 2001, A (Y1 AXIS)

NOTES: SPECIFICATIONS WILL VARY WITH OPERATING TEMPERATURE.

PRODUCT FEATURE

PMI CONFIDENTIAL AND PROPRIETARY

PLANAR MONOLITHICS INDUSTRIES, INC.
7311-F GROVE ROAD
FREDERICK, MARYLAND 21704 USA
TEL: 301-662-5019 FAX: 301-662-1731
E-MAIL: sales@pmi-rf.com
ISO 9001:2008 CERTIFIED

TYPICAL CHARACTERISTICS
ON
LM-10M2D5G-100CW-1KWP-SFF

MECHANICAL OUTLINE

7311-F Grove Road Frederick, MD 21704 USA Phone: (301)662-5019 Fax: (301)662-1731
Email: sales@pmi-rf.com
## TYPICAL CHARACTERISTICS

**ON**

LM-10M2D5G-100CW-1KWP-SFF

<table>
<thead>
<tr>
<th>TEST ITEM NO</th>
<th>PARAMETERS</th>
<th>SPECIFIED VALUE</th>
<th>TEST RESULTS</th>
<th>QA QC</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Frequency Range:</td>
<td>10MHz to 2.5GHz</td>
<td>10MHz to 2.5GHz See Plot</td>
<td></td>
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<tr>
<td>2</td>
<td>Insertion Loss:</td>
<td>0.5dB TYPICAL</td>
<td>1.09dB See Plot</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Input /Output VSWR:</td>
<td>1.3:1 MAXIMUM (AT -10dBm INPUT) (NOTES 1, 2)</td>
<td>Input 1.28:1 Output 1.22:1 See Plot</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Impedance:</td>
<td>50Ω</td>
<td>Pass</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Input Power:</td>
<td>100 WATTS CW MAXIMUM 1KW PEAK (1% DUTY CYCLE, 1USEC MAXIMUM PULSE WIDTH) (NOTES 1, 2, 3, 4)</td>
<td>Pass See Graph</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Maximum Flat Leakage</td>
<td>14dBm MAXIMUM AT 10W CW</td>
<td>Pass See Graph</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>P1dB:</td>
<td>0dBm MINIMUM</td>
<td>Pass See Graph</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Recovery Time:</td>
<td>2us TYPICAL</td>
<td>Pass See Plots</td>
<td></td>
</tr>
</tbody>
</table>

Notes:
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TYPICAL CHARACTERISTICS
ON
LM-10M2D5G-100CW-1KWP-SFF

Insertion Loss & VSWR

<table>
<thead>
<tr>
<th>Frequency (GHz)</th>
<th>VSWR</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.715650</td>
<td>1.2845</td>
</tr>
<tr>
<td>2.487550</td>
<td>-1.0911 dB</td>
</tr>
<tr>
<td>22.450000</td>
<td>-0.05805 dB</td>
</tr>
<tr>
<td>1.653400</td>
<td>1.2210</td>
</tr>
</tbody>
</table>

Ch1: Start 10.0000 MHz Stop 2.50000 GHz

7311-F Grove Road Frederick, MD 21704 USA Phone: (301)662-5019 Fax: (301)662-1731
Email: sales@pmi-rf.com
**Response & Recovery Time**

*Frequency 1GHz, PRF 50 kHz, 50% Duty Cycle, 25dBm IN*

Response Time = 4 us
Recovery Time = >100ns