



STEP RECOVERY DIODE COMB (HARMONIC) GENERATORS

0.1 – 26 GHz

FEATURES

- Broadband Output Frequency Spectrum (from second harmonic to 26 GHz)
- No Bias Required
- Input Matched to 50 Ohms
- Very Low Phase Noise
- Hermetically Sealed Module
- Available in Drop-In Type Package
- Custom Input Freq Available From 10MHz to 10GHz
- Option for Enhanced Assembly for Severe Vibration Environment



APPLICATIONS

- Impulse Generator
- Frequency Multipliers
- Frequency Synthesizers
- Built-In-Self-Test Sources

ENVIRONMENTAL RATINGS

Max Input Power..... 1 Watt
 Operating Temperature..... -55°C to +95°C
 Storage Temperature..... -65°C to +150°C
 Temperature Cycling..... -65°C to +150°C
 Shock..... 1500 G, 0.5 msec; 50 G, 11 msec
 Vibration..... 20 G, 100 to 2,000 Hz
 Acceleration..... 10,000 G

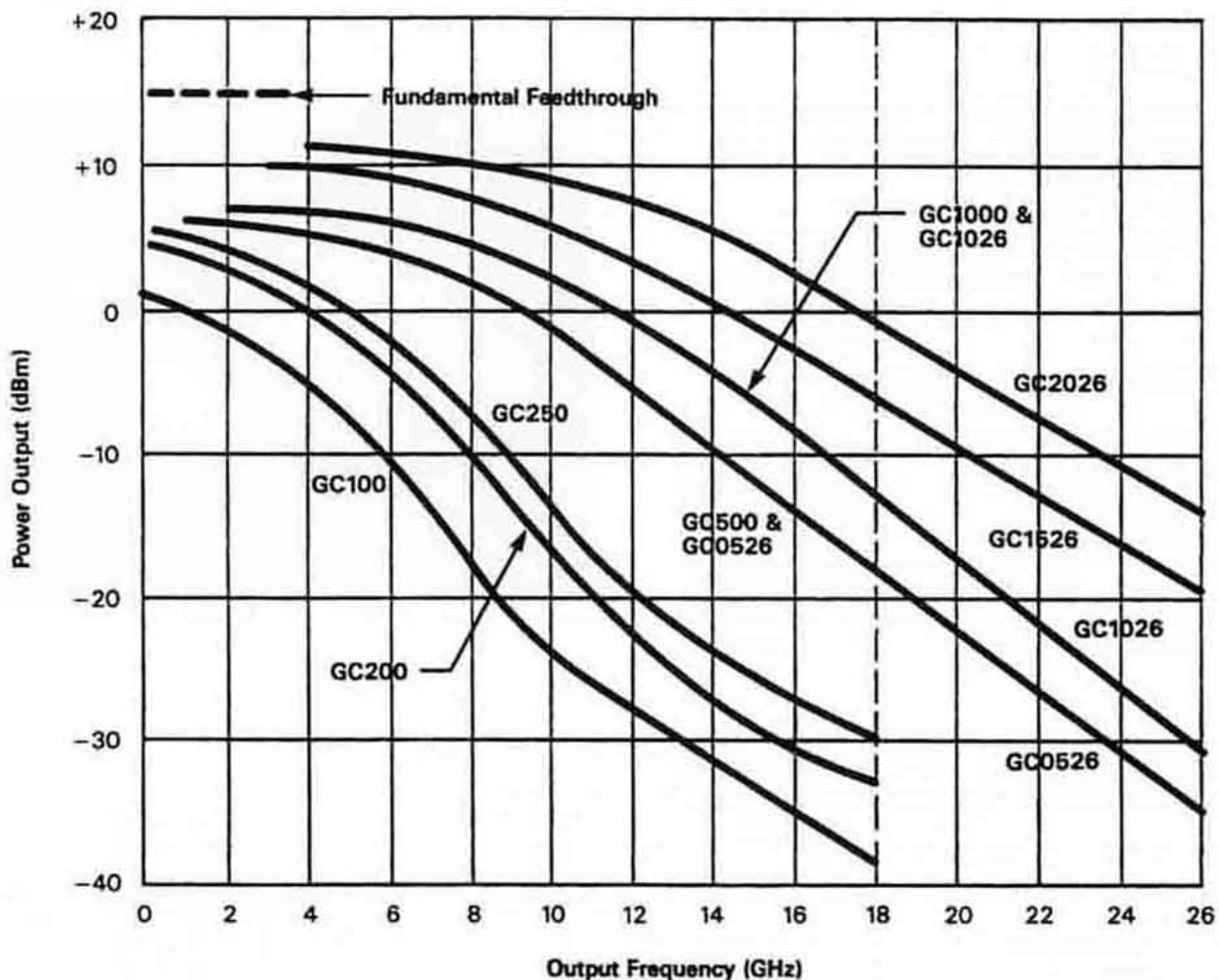
Specifications: (@ +25°C, 0.5 Watt Input)

| MODEL ¹ | INPUT FREQ. (MHz) ² | MAX INPUT VSWR | MINIMUM OUTPUT POWER PER PICKET (dBm) | | | | | OUTLINE OPTIONS |
|--------------------|--------------------------------|----------------|---------------------------------------|---------|------------|-------------|-----------|-----------------|
| | | | UP to 4 GHz ³ | 4-8 GHz | 8-12.4 GHz | 12.4-18 GHz | 18-26 GHz | |
| GC100** | 100 | 2:1 | -10 | -20 | -30 | -40 | ---- | C,L,Y |
| GC200** | 200 | 2:1 | -5 | -15 | -25 | -35 | ---- | C,L,Y |
| GC250** | 250 | 2:1 | 0 | -10 | -20 | -30 | ---- | C,L,Y |
| GC500** | 500 | 2:1 | +5 | -5 | -15 | -20 | ---- | C,L,Y |
| GC1000** | 1000 | 2:1 | +5 | 0 | -10 | -15 | ---- | C,L,Y |
| GC0526** | 500 | 2:1 | +5 | -5 | -15 | -20 | -40 | C,L,Y |
| GC1026** | 1000 | 2:1 | +5 | 0 | -10 | -15 | -35 | C,L,Y |
| GC1526** | 1500 | 2:1 | +5 | 0 | -5 | -10 | -25 | C,L,Y |
| GC2026** | 2000 | 2:1 | +5 | +5 | 0 | -10 | -20 | C,L,Y |

Note 1: Suffix (**) specify options for internal DC return and package style. First Position: N indicates no DC return and R indicates internal DC return included. Note that DC Return is required for proper operation. Second Position: C, L, or Y indicates Package style (see outline drawings page)
 Note 2: Other input frequencies from 10 MHz to 10 GHz are available. Contact factory for information.
 Note 3: For second harmonics up to 4 GHz the fundamental feedthrough is typically +15dBm.
 Note 4: All units can respond to a 3% bandwidth of input frequency without noticeable degradation.
 Note 5: All models can be modified for use as an impulse generator. Consult factory for information on output amplitude, polarity, and pulse width.
 Note 6: Add "X" to final suffix for an enhanced assembly version for more severe vibration environment.

For Package Outlines see Outline Drawings Page

TYPICAL OUTPUT POWER SPECTRUM ENVELOPE



For Package Outlines see Outline Drawings Page