



# 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
- Hermetically Sealed Module
- Available in Drop-In Type Package



## 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 <sup>1</sup>	INPUT <sup>2</sup> FREQ. (MHz)	MAX INPUT VSWR	MINIMUM OUTPUT POWER PER PICKET (dBm)					OUTLINE
			UP to 4 GHz <sup>3</sup>	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 packaged style. First Position: N indicates no DC and R indicates internal DC return included. Second Position: C, L, or Y indicates Package style (see outline drawings page)

Note 2: Other input frequencies from 30 MHz to 2 GHz are available. Contact factory for information.

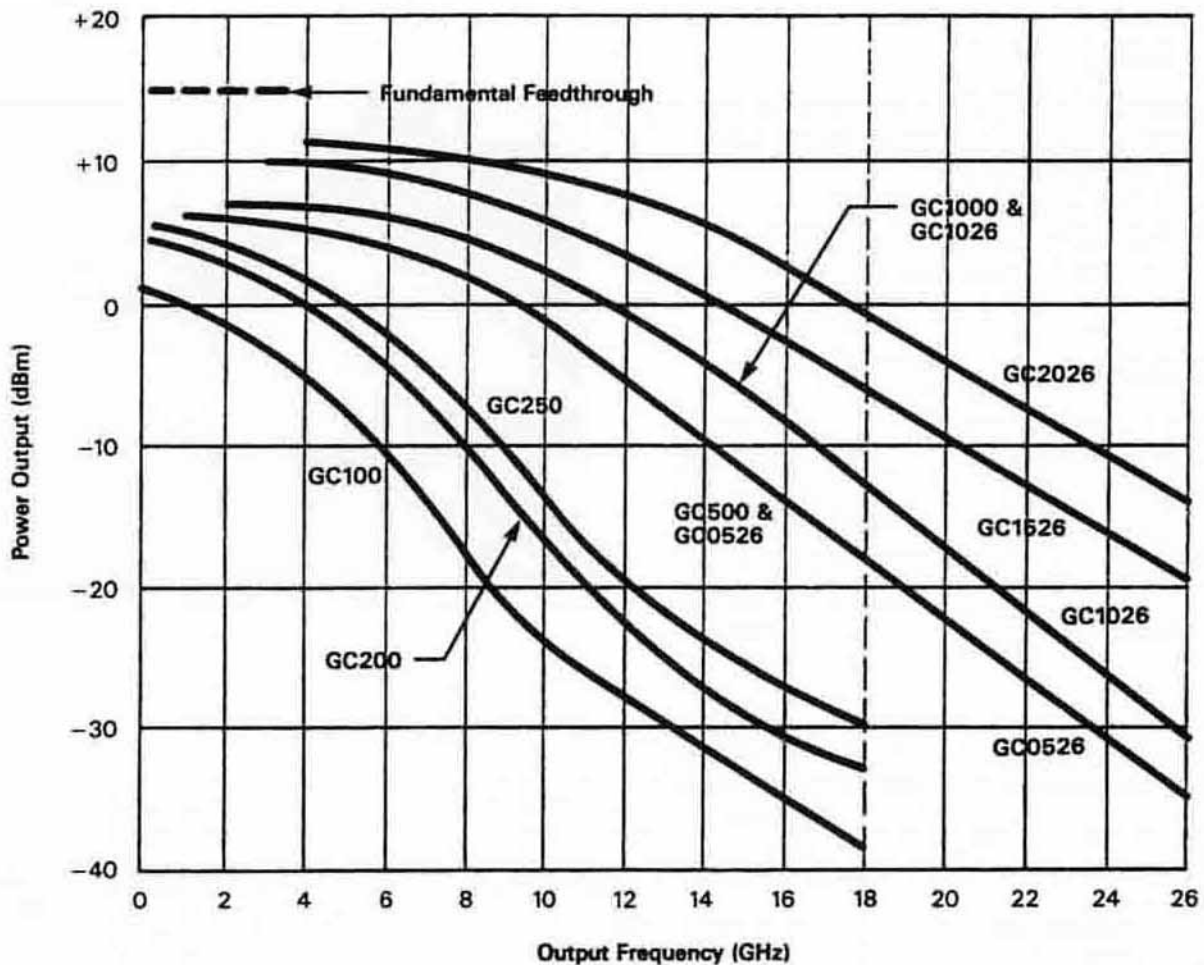
Note 3: For second harmonics up to 4 GHz the fundamental feedthrough is typically +15dBm.

Note 4: All units can respond to a 3% bandwidth of input frequency without significant degradation.

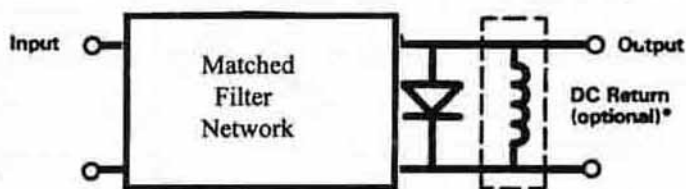
Note 5: All models can be modified for use as an impulse generator. Consult factory for information on output amplitude, polarity, and pulse width.

Note 6: Add "X" to final suffix for an enhanced assembly version for more severe vibration environment.

## TYPICAL OUTPUT POWER SPECTRUM ENVELOPE



## SCHEMATIC



\*DC return is required for proper operation. It can be provided internally or externally.

For Package Outlines see Outline Drawings Page