

# 531C-x Series

## RF Driver



1106

The 531C series RF Drivers are designed to operate with Isomet 40MHz AO modulators and compact Q-switches for the proportional (analog) control of laser beam intensity.

Contained in these Drivers is a crystal oscillator, a wideband balanced diode ring modulator, and RF power amplifier. A high speed, balanced ring modulator is used to modulate the carrier amplitude under the control of the video input. The resulting double sideband AM signal is subsequently amplified by a Class A MOSFET amplifier.

Efficient heat transfer from the driver is required. The mounting base must be attached to an external heat sink not exceeding a temperature of 70°C. The supply to the 531C-2 driver is internally regulated and thus will accept a wide DC power input range. The DC input is not internally regulated on C-L, C-4 and C-6 variants.

### SPECIFICATIONS

Output impedance:	50Ω Nominal
Load Mismatch VSWR:	2:1 Max
RF On-Off Ratio:	>37dB
Analogue Input:	0 - 1V * for 100% depth of modulation 50 ohm input impedance
Frequency Accuracy:	± 0.003%
Frequency Stability:	± 0.003%
DC Power Input: 531C-L	+15Vdc regulated to ± 1%, < 400mA
531C-2	+22 to +30Vdc regulated to ± 1%, < 500mA
531C-4	+24/+28Vdc regulated to ± 1%, < 500mA
531C-6	+24/+28Vdc regulated to ± 1%, < 700mA
Temperature Range:	0°C to 60°C ambient, temperature at mounting face must not exceed 60°C.
Mounting Orientation:	Any
Dimensions:	See Outline, reverse side.

### PERFORMANCE

<u>Model</u>	<u>Centre Frequency</u>	<u>Minimum Rise Time</u>	<u>RF Drive Power</u>	<u>Supply</u>
531C-L	40MHz	10nsec	>1.7 W	+15V
531C-2	40MHz	10nsec	>3.0 W	+22 to +30V
531C-4	40MHz	10nsec	>3.6 W	+24V
531C-6	40MHz	10nsec	>6.0 W	+24V

**ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE**

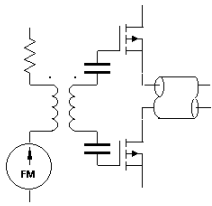
ISOMET CORP, 5263 Port Royal Rd, Springfield, VA 22151, USA.

Tel: (703) 321 8301 Fax: (703) 321 8546

E-mail: [ISOMET@ISOMET.COM](mailto:ISOMET@ISOMET.COM) Web Page: [WWW.ISOMET.COM](http://WWW.ISOMET.COM)

**Quality Assured.**

**In-house: RF & Digital design  
Software Development  
OEM manufacture**

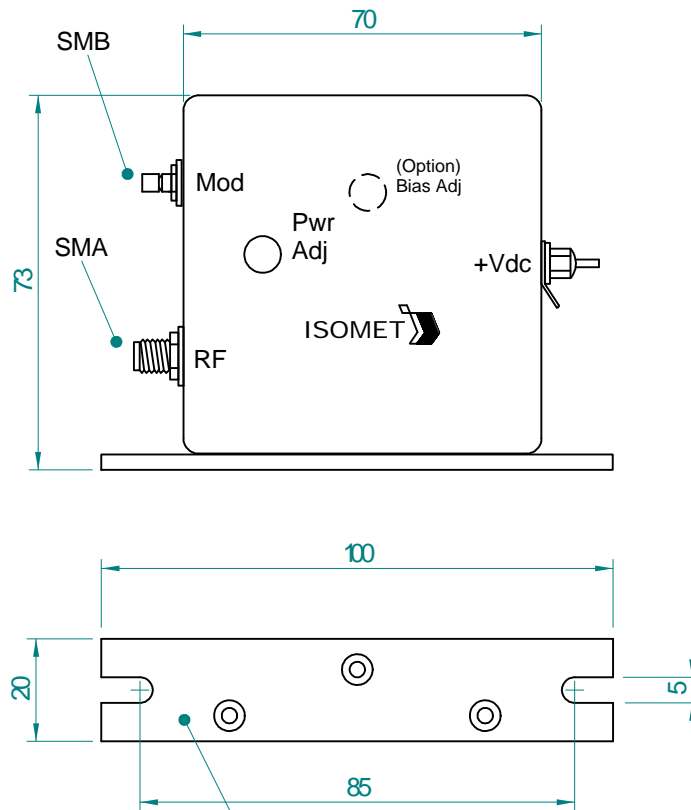


# 531C-x Series RF Driver



1106

## OUTLINE DRAWING



Mounting Flange to Heatsink  
Apply Thermal Compound  
Max. Temp 70deg C

Dim'n : mm

### \* Options

### Add Suffix

Input BIAS	:	'-B'
0-5V modulation	:	'-V'
0-10V modulation	:	'-X'

(TTL compatible = 521C series)

**ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE**

ISOMET CORP, 5263 Port Royal Rd, Springfield, VA 22151, USA.

Tel: (703) 321 8301 Fax: (703) 321 8546

E-mail: [ISOMET@ISOMET.COM](mailto:ISOMET@ISOMET.COM) Web Page: [WWW.ISOMET.COM](http://WWW.ISOMET.COM)

**Quality Assured.**  
In-house: RF & Digital design  
Software Development  
OEM manufacture