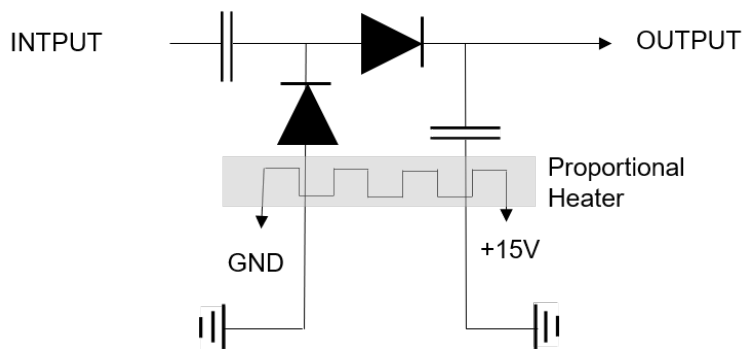


GENERAL DESCRIPTION

The voltage doubler RF Detector provides a stable video pulse which is a function of the RF input power level. The RF Detector is temperature controlled to assure that the detected video magnitudes are repeatable under the specified environmental conditions. The RF Detector output will be trimmed to a predetermined level at a specified RF input power.

FUNCTION BLOCK DIAGRAM

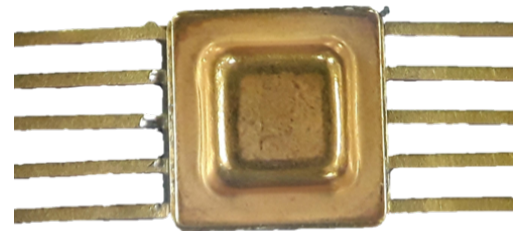
AVAILABLE UPON REQUEST



MECHANICAL

The 3100 consists of multiple discrete chips mounted to an alumina nitride substrate which is thermally isolated from the 10 lead .250" square flatpack. All interconnects are 1 mil Au wire for high reliability assembly designed for integration into an Integrated microwave assembly.

3100 is RoHS compliant.



PIN CONNECTIONS

- 1 Heater RTN
- 2 Input RF
- 3 Input RF
- 4 Input RF
- 5 Ground
- 6 Ground
- 7 Ground
- 8 Output Video
- 9 Vpos Heater
- 10 Heater RTN

TRUTH TABLE

IN PWR OUT
VIDEO

+20dbm 1.90V
nom

0dbm 0.150V
nom

+20dbm 0.025V
nom

ELECTRICAL SPECIFICATIONS

Vpos +15V, TEMP 25C, Frequency 1090MHz

	SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNITS
INPUT							
	RFL	RF Input Low	50ohm fixture		-10		dBm
	RFM	RF Input Medium	50ohm fixture		0		dBm
	RFH	RF Input High	50ohm fixture		+20		dBm
OUTPUT							
	VO_low	Voltage Out Low	100ohm load		.025		V
	VO_med	Voltage Out Medium	100ohm load		.15		V
	VO_hi	Voltage Out High	100ohm load		1.9		V
SUPPLY							
	IQC_pos	Quiescent Current Positive	25C		40		mA
	lpk_pos	Current Peak Voltage Positive	25C		250		mA
DYNAMIC							
	TSW_rise	Switching Speed Rise	100pF load		100		nS
	TSW_fall	Switching Speed Fall	100pF load		100		nS

MECHANICAL SPECIFICATIONS

DRAWING NOT TO SCALE. DIMENSIONS ARE IN INCHES, UNLESS OTHERWISE NOTED.

Type: Housing; Lead Finish: Gold

Length .270 in MAX; Width .270 in MAX; Height .160 in MAX

MARKING SPECIFICATIONS

Cage Code: 0FSS1

Part Number: 3100

