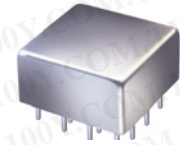


# Plug-In Bias-Tee

Wideband 10 to 3000 MHz

勝特力材料 886-3-5753170  
 勝特力电子(上海) 86-21-54151736  
 勝特力电子(深圳) 86-755-83298787  
[Http://www.100y.com.tw](http://www.100y.com.tw)

## PBTC-3G



CASE STYLE: C07  
 QTY (1-9)

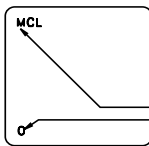
### Maximum Ratings

Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
RF Power	30dBm max.
Voltage at DC port	30V max.
Input Current	500mA
DC resistance from DC to RF&DC port	4.5 ohm typ.

### Pin Connections

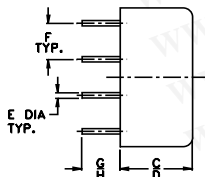
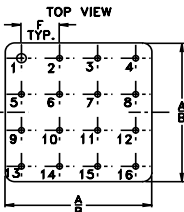
RF	9
RF&DC	12
DC	3
GROUND	all other pins

### Outline Drawing



NOTE: BLUE BEAD INDICATES PIN 1. PIN NUMBERS DO NOT APPEAR ON UNIT, FOR REFERENCE ONLY. PINS 6,7,10,11 OMITTED - C145

LETTER "M" OVER PIN 13  
 "O" OVER PIN 1



### Outline Dimensions (inch/mm)

A	B	C	D	E
.770	.810	.380	.410	.030
19.56	20.57	9.65	10.41	0.76
F	G	H	wt	
.200	.20	.14	grams	
5.08	5.08	3.56	11.0	

### Features

- wideband, 10 to 3000 MHz
- low insertion loss, 0.6 dB typ.
- hermetic, metal case

### Applications

- biasing laser diodes
- biasing amplifiers
- biasing active antennas
- DC return
- DC blocking
- military, hi-rel application

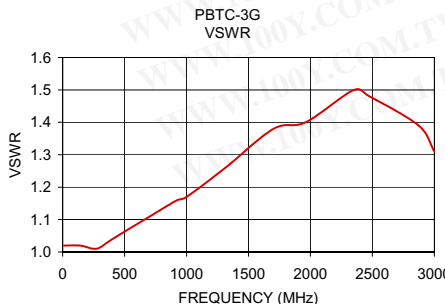
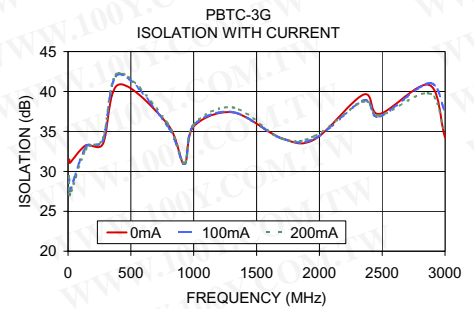
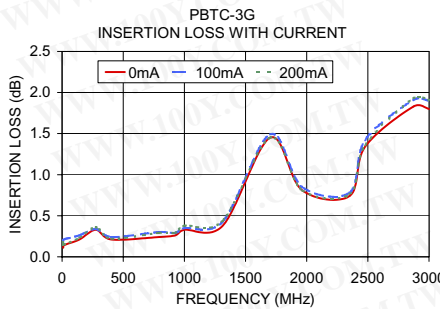
### Bias Tee Electrical Specifications

MODEL NO.	FREQ. (MHz)		INSERTION LOSS* (dB)						ISOLATION*(dB) (RF port to DC port) (RF&DC port to DC port)						VSWR** (:1)					
			L		M		U		L		M		U		L		M		U	
	f <sub>L</sub>	f <sub>U</sub>	Typ.	Max.	Typ.	Max.	Typ.	Max.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Max.	Typ.	Max.	Typ.	Max.
PBTC-3G	10	3000	0.15	0.7	0.3	1.5	1.0	2.5	27	20	30	20	35	20	1.06	1.2	1.13	1.66	1.6	1.7

L= low range(f<sub>L</sub> to 10 f<sub>L</sub>) M=mid range(10 f<sub>L</sub> to f<sub>U</sub>/2) U=upper range(f<sub>U</sub>/2 to f<sub>U</sub>)  
 \* Insertion Loss and Isolation are guaranteed up to 20 dBm-RF power and 200mA DC current.  
 \*\* VSWR measured with open and short at DC port.

### Typical Performance Data

Freq. (MHz)	Pin (dBm)	INSERTION LOSS (dB) with current						ISOLATION (dB) (Pin=-10dBm) with current						VSWR (:1)
		0mA	20mA	50mA	100mA	150mA	200mA	0mA	20mA	50mA	100mA	150mA	200mA	
		10.00	19.79	0.11	0.15	0.16	0.17	0.17	0.18	31.50	31.01	29.96	29.26	
15.00	21.83	0.14	0.18	0.18	0.21	0.21	0.21	31.07	30.42	28.95	27.53	27.08	27.10	1.02
141.86	20.57	0.21	0.25	0.25	0.26	0.27	0.23	33.27	33.24	33.17	33.06	32.90	32.75	1.02
276.19	20.83	0.33	0.37	0.36	0.34	0.36	0.36	33.42	33.39	33.57	33.84	33.99	34.10	1.01
403.05	20.98	0.21	0.25	0.22	0.24	0.27	0.22	40.88	41.42	41.56	42.17	41.76	42.32	1.04
791.10	20.55	0.24	0.27	0.28	0.30	0.32	0.29	35.93	36.18	36.01	35.69	35.76	36.04	1.13
925.43	20.02	0.26	0.28	0.26	0.29	0.33	0.29	30.93	30.83	30.98	30.93	31.00	31.02	1.16
1000.00	19.70	0.33	0.34	0.35	0.35	0.38	0.38	35.63	35.41	35.62	35.80	35.55	35.86	1.17
1313.48	19.25	0.38	0.42	0.41	0.43	0.44	0.44	37.38	37.67	37.35	37.42	38.05	38.00	1.26
1701.53	20.14	1.45	1.46	1.50	1.49	1.50	1.45	34.14	33.79	33.97	34.12	34.23	34.09	1.38
1962.71	19.86	0.81	0.79	0.85	0.85	0.84	0.81	34.01	34.04	34.25	34.12	34.13	34.42	1.40
2350.76	20.42	0.74	0.80	0.80	0.78	0.80	0.76	39.61	38.75	38.52	38.86	38.96	38.75	1.50
2477.63	20.80	1.34	1.38	1.41	1.42	1.41	1.36	37.19	37.73	37.85	36.87	37.46	36.98	1.48
2873.14	21.04	1.83	1.92	1.93	1.91	1.93	1.93	40.84	40.10	39.86	41.04	40.12	39.78	1.39
3000.00	21.16	1.80	1.91	1.92	1.90	1.92	1.91	34.25	34.42	34.80	37.52	35.61	34.79	1.31



### electrical schematic

