

Drop-In

Monolithic Amplifier

50Ω, DC to 1000 MHz

MAR-1A



CASE STYLE: VV105

Features

- substitute** for MAR-1 and MSA-0185
- junction temperature similar to MAR-1/MSA-0185
- low device voltage, 3.5V typ.
- flat gain, ± 0.3 dB typ. to 1 GHz
- higher power output, 4.5 dBm typ.
- wide 3dB bandwidth, 1.2 GHz

Applications

- cellular
- PCN & instrumentation

Electrical Specifications @25°C

MODEL NO.	FREQ. (MHz)	GAIN, dB Typical @MHz			MAXIMUM POWER, dBm		DYNAMIC RANGE		VSWR (:1) Typ.		ABSOLUTE MAXIMUM RATING*		DC POWER @ Pin 3				THERMAL RESISTANCE θ_{jc} , typ. °C/W	PRICE \$ Qty. (30)
		100	1000	Min.	Output (1 dB Comp.) Typ.	Input (no dmg.) Typ.	NF dB Typ.	IP3 dBm Typ.	In	Out	I (mA)	P (mW)	Current (mA)	Volt Min.	Typ.	Max.		
MAR-1A	DC-1000	22.2	20.7	18	4.5	13	2.5	17	1.1	1.2	40	200	17	3.0	3.5	4.0	178	.99

* Permanent damage may occur if any of these limits are exceeded.

** See Bias resistor table.

Maximum Ratings

Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
Junction Temperature	150°C

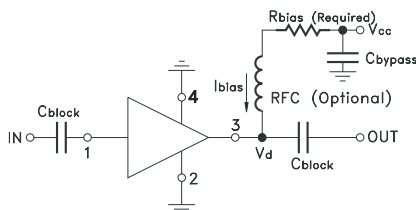
Pin Configuration

RF IN	1
RF OUT	3
DC	3
GND EXT.	2,4

model identification

Model	marking
MAR-1A	06

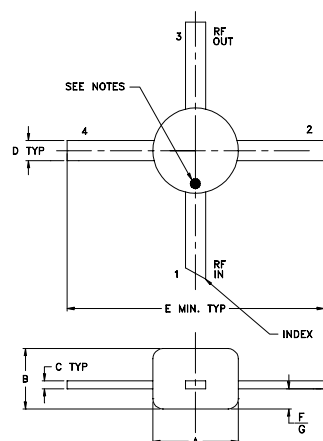
typical biasing configuration



R BIAS "1%" Resistor Values (ohms) for Optimum Biasing

Vcc	MAR-1A
7	187
8	243
9	301
10	374
11	432
12	499
13	562
14	619
15	681
16	750
17	806
18	866
19	931
20	976

Outline Drawing



Outline Dimensions (inch mm)

A	B	C	D	E	F	G	wt.
.085	.060	.008	.020	.020	.250	.012	grams
2.16	1.52	.20	.51	.635	.30	.64	.015

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