

MONOLITHIC AMPLIFIERS $50\ \Omega$

BROADBAND DC to 2.5 GHz



MAR-SM



MAV-SM

up to +18 dBm output

MODEL NO.	FREQ. MHz	GAIN, dB Typical (at MHz)				MAXIMUM POWER, dBm note 5 Typ. Output (1 dB Comp.)		DYNAMIC RANGE NF dB IP3 dBm Typ. Typ.		VSWR Typ.		ABSOLUTE MAXIMUM RATING ⁷ (25 °C)		DC POWER at Pin 3		THERMAL RESISTANCE ⁶ θ_{jc} °C/W	CAPD DATA (see RF/IF Designer Handbook) Page	Case Style Note B	CONTOUR NO.	Price \$ (Qty 30)
		100	1000	2000	MIN.	Typ.	Input (no damage)	Typ.	Typ.	In	Out	I (mA)	P (mW)	Current	Volt Typ.					
MAR-1SM	DC-1000	18.5	15.5	—	13.0	+1.5	+13	5.5	+14.0	1.3	1.2	40	200	17	5.00	115	3-22	WW107	cb	1.04
MAR-2SM	DC-2000	12.5	12.0	11.0	8.5	+4.5	+13	6.5	+17.0	1.5	1.4	60	325	25	5.00	105	3-22	WW107	cb	1.17
MAR-3SM	DC-2000	12.5	12.0	10.5	8.0	+10.0	+13	6.0	+23.0	1.5	1.7	70	400	35	5.00	115	3-22	WW107	cb	1.24
MAR-4SM	DC-1000	8.3	8.0	—	7.0	+12.5	+13	7.0	+25.5	1.5	1.9	85	500	50	5.25	100	3-23	WW107	cb	1.34
MAR-6SM	DC-2000	20.0	16.0	11.0	9.0	+2.0	+13	3.0	+14.5	1.7	1.7	50	200	16	3.50	120	3-23	WW107	cb	1.21
MAR-7SM	DC-2000	13.5	12.5	11.0	8.5	+5.5	+13	5.0	+19.0	1.7	1.7	60	275	22	4.00	120	3-23	WW107	cb	1.36
MAR-8SM	DC-1000	32.5	22.5	—	19.0	+12.5	+13	3.3	+27.0	#	#	65	500	36	7.80	140	3-24	WW107	cb	1.32
MAV-1SM	DC-1000	18.5	15.0	—	12.5	+1.5	+13	5.5	+14.0	1.4	1.3	40	200	17	5.00	110	3-24	RRR137	cb	1.04
MAV-2SM	DC-1500	12.5	11.0	10.0**	7.5	+4.5	+13	6.5	+17.0	1.3	1.4	60	325	25	5.00	100	3-24	RRR137	cb	1.17
MAV-3SM	DC-1500	12.5	11.0	10.0**	7.5	+10.0	+13	6.0	+23.0	1.3	1.6	70	400	35	5.00	110	3-25	RRR137	cb	1.24
MAV-4SM	DC-1000	8.3	7.5	—	7.0	+11.5	+13	7.0	+24.5	1.4	1.8	85	500	50	5.25	95	3-25	RRR137	cb	1.34
MAV-5SM	50-1500	8.0	7.0	6.5**	5.5	+18.0	+20	6.5	+29.0	1.6	2.0	135	1500	80	8.4	85	---	RRR137	cb	1.90
MAV-11SM	50-1000	12.7	10.5	—	9.0	+17.5	+13	3.6	+30.0	1.5	1.7	80	550	60	5.50	125	3-25	RRR137	cb	1.62

NOTES:

- ☆ Increases below 1500 MHz.
- * RAM models are hermetically sealed.
- Max. Voltage 7V (DC power at pin 1).
- ** Typical gain at 1500 MHz
- ❖ Price of RAM models is for 1-9 quantity.
- # Dash-8 models input and output impedances are not 50 ohms, see S-parameter data. Conditionally stable, source and load VSWR<3:1 required. Dash-6 models conditionally stable, source and load VSWR<5:1 required.
- ⊕ Low frequency cutoff determined by external coupling capacitors.
- * Specification at 500 MHz.
- ** Specification at 2500 MHz.
- A. Environmental specifications and re-flow soldering information available in General Information Section.
- B. Units are non-hermetic unless otherwise noted. For details on case dimensions & finishes see "Case Styles & Outline Drawings".
- C. Prices and Specifications subject to change without notice.
- 1. Minimum gain at highest frequency. Full temperature range, except room temperature for Dash-4 and Dash-5 models.
- 2. Model number designated by color dot or alphanumeric code marking.
- 3. Frequency at which output power, NF and IP3 are specified:
500 MHz for MAR-1SM, MAR-6SM, RAM-1, RAM-6, MAV-11SM, VAM-6, 1000 MHz for all other models.
- 4. Dash-5 and Dash-6 models potentially unstable with very high VSWR terminations.
- 5. Minimum output at 1 dB compression: +16.0 dBm for MAV-5SM at room temperature.
- 6. Thermal resistance θ_{jc} is from hottest junction in the device to the mounting surface of the leads.
- 7. Permanent damage may occur if any of these limits are exceeded.

marking identification

Model	Alphanumeric Code	OR	Color Dot
MAR-1SM	A01		Brown
MAR-2SM	A02		Red
MAR-3SM	A03		Orange
MAR-4SM	A04		Yellow
MAR-6SM	A06		White
MAR-7SM	A07		Violet
MAR-8SM	A08		Blue
RAM-1	1 or A01		—
RAM-2	2 or A02		—
RAM-3	3 or A03		—
RAM-4	4 or A04		—
RAM-6	6 or A06		—
RAM-7	7 or A07		—
RAM-8	8 or A08		—
MAV-1SM	1		—
MAV-2SM	2		—
MAV-3SM	3		—
MAV-4SM	4		—
MAV-5SM	5		—
MAV-11SM	A		—
VAM-3	A03		—
VAM-6	A06		—
VAM-7	A07		—

