MONOLITHIC AMPLIFIERS 50 Ω

BROADBAND DC to 2.5 GHz


MAR-SM


MAV-SM

up to +18 dBm output

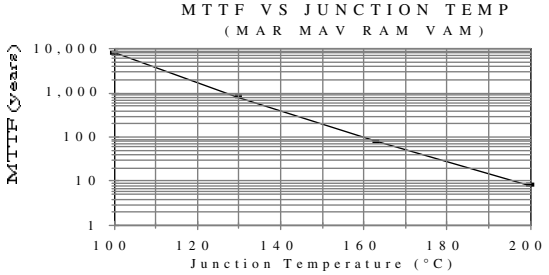
MODEL NO.	✪FREQ. MHz	GAIN, dB Typical (at MHz) 100	1000	2000	note 1 MIN.	MAXIMUM POWER, dBm note 5 Typ. Output (1 dB Comp.)	Input (no damage)	DYNAMIC RANGE NF dB Typ.	IP3 dBm Typ.	VSWR Typ. In	Out	ABSOLUTE MAXIMUM RATING[7] (25 °C) I (mA)	P (mW)	DC POWER at Pin 3 Current (mA)	Volt Typ.	THERMAL RESISTANCE[6] θjc °C/W	CAPD DATA (see RF/IF Designer Handbook) Page	Case Style Note B	CONNECTION	Price $ (Qty 30)
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

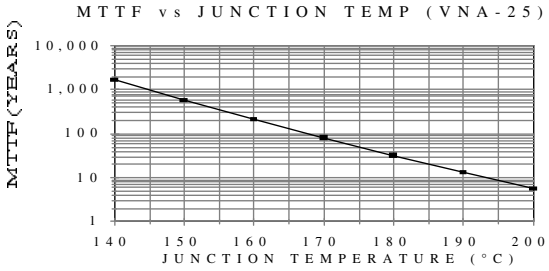
NOTES:

☆ 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 θjc 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		—





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