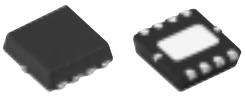
SUNSTAR微波光电 http://www.rfoe.net/ TEL:0755-83396822 FAX:0755-83376182 E-MAIL: szss20@163.com

DUAL MATCHED MMIC AMPLIFIERS 50Ω

HIGH DYNAMIC RANGE DC to 4 GHz



MERA-533
MERA-7433

MERA-556
MERA-7456

all specifications at 25°C

MODEL◆ NO.	✪ FREQ. GHz f_L - f_U	GAIN, dB Typical over frequency, GHz 0.1	1	2	3	4	Min.@ 2 GHz	MAXIMUM POWER (dBm) Output (1 dB Comp.) @ 1 GHz Typ.	Min.	Input (no dmg)	DYNAMIC RANGE NF (dB) Typ.	IP3 (dBm) Typ 0.5 GHz	VSWR (:1) Typ. In	Out	MAXIMUM RATING** I (mA)	P (mW)	DC OPERATING POWER Pin 5, Pin 8 Current (mA)	Volt. Typ	Min	Max	THERMAL RESISTANCE A1 or A2 θjc Typ. °C/W	matching[1] AMPLITUDE UNBALANCE BETWEEN 2 AMPS (dB) DC-2.2 GHz Typ.	2.2-4 GHz Max.	PHASE UNBALANCE BETWEEN 2 AMPS (deg) 2.2 -4 GHz Typ.	Max.	CASE STYLE Note B	PRICE $ ea. Qty. (30)
MERA-533	DC-4	20.5	20	18.8	17.5	16	16	17.5	16.5	13	3.5	34	1.4	1.5	120	650	65	4.9	4.2	5.5	133	.05	0.3	0.1	0.5	0.7	2.0	DL805	3.40
MERA-556	DC-2.2	20.5	20.2	19	16.7	13	16	17.6	16.5	13	3.5	35.5	1.2	1.4	120	650	65	4.9	4.2	5.5	133	0.1	0.3	0.1	—	0.6	1.5	DL1020	3.40
							Min.@ 1 GHz		Min.@ 0.1 GHz																			
MERA-7456	DC-1	25.1	22.5	18.6	14.2	9.4	20	18.2	18	10	2.7	35	1.3	2.0	130	700	80	4.8	4.3	5.3	120	0.1	0.3	0.1	—	0.6	1.0	DL1020	4.70
MERA-7433	DC-1	25	22.4	19	16.2	13.4	20	18.3	18	10	2.7	35	1.25	1.8	130	700	80	4.8	4.3	5.3	120	0.15	0.3	0.3	—	0.5	1.0	DL805	4.70

1. for test method, see application AN-60-032

see suggested PCB layout PL-164 for MERA-556 , -7456
PL-165 for MERA-533 , -7433

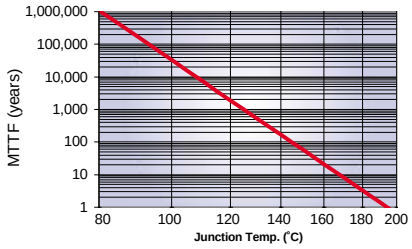
Features

- two matched amplifiers in one package
- InGaP HBT IF and RF amplifier
- low noise figure, high IP3, +36 dBm at 100MHz
- low thermal resistance
- transient protected
- patent pending
- useable as balanced and push pull amplifier

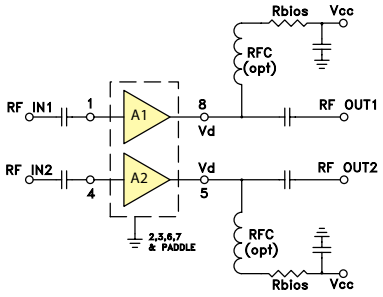
Applications

- cellular
- catv
- VHF & UHF communication
- receivers & transmitters

MTTF vs. Junction Temp. for A1 or A2



Typical Biasing Configuration



Maximum Ratings[2]

Operating Case Temperature	-45°C to 85°C
Storage Temperature	-55°C to 100°C

2. See application note AN-60-032 for adequate heat sinking of paddle.

NOTES:
◆ Aqueous washable
✪ Low frequency cutoff determined by external coupling capacitors.
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.
D. For Quality Control Procedures see Table of Contents, Section 0, "Mini-Circuits Guarantees Quality" article. For Environmental Specifications see Amplifier Selection Guide.
1. Permanent damage may occur if any of these limits are exceeded. These ratings are not intended for continuous normal operation.
2. Reliability predictions and normal operating conditions are applicable at current specified.

Pin Connections

RF IN 1	1
RF OUT 1	8
RF IN 2	4
RF OUT 2	5
DC 1	8
DC 2	5
GROUND paddle	GROUND 2,3,6,7 and
Demo Board	TB-293 (MERA-556, -7456)
	TB-294 (MERA-533, -7433)

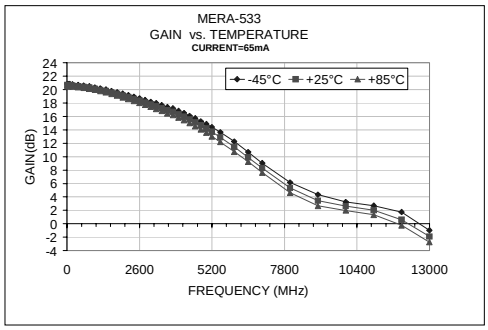
050615

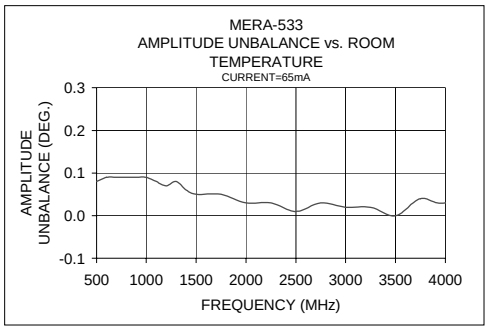
Mini-Circuits®
INTERNET http://www.minicircuits.com
P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661
Distribution Centers NORTH AMERICA 800-654-7949 • 417-335-5935 • Fax 417-335-5945 • EUROPE 44-1252-832600 • Fax 44-1252-837010

Mini-Circuits ISO 9001 AS9100 Certified
SUNSTAR射频通信 http://www.rfoe.net/ TEL:0755-83397033 FAX:0755-83376182 E-MAIL: szss20@163.com

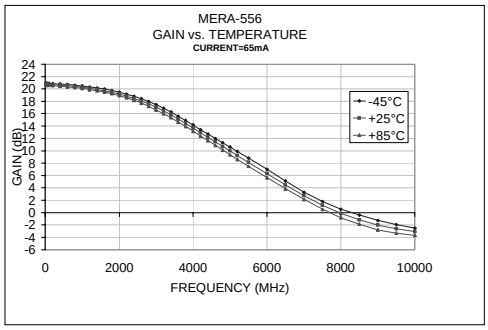
SUNSTAR微波光电 http://www.rfoe.net/ TEL:0755-83396822 FAX:0755-83376182 E-MAIL: szss20@163.com

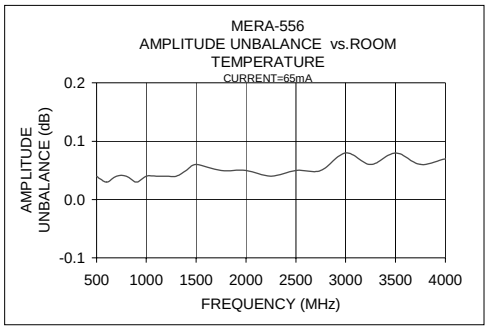
MERA-533



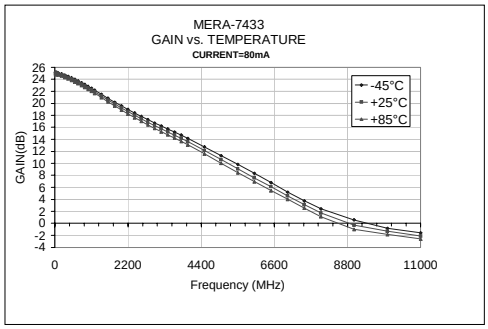


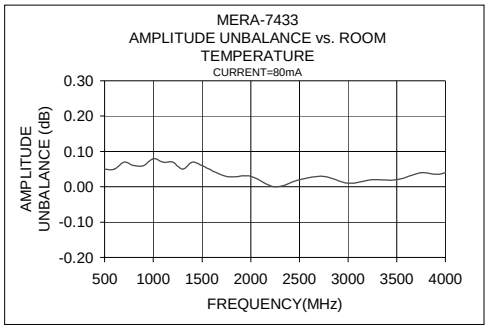
MERA-556



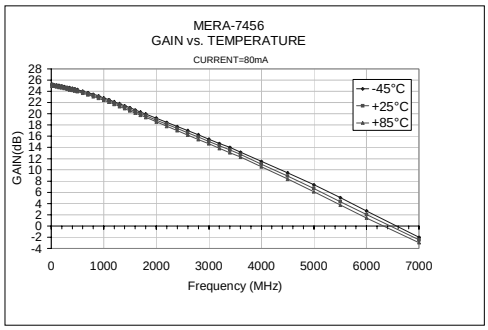


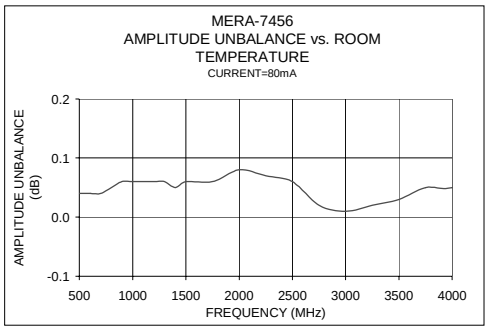
MERA-7433





MERA-7456





050218

The Design Engineers Search Engine
Provides Actual Data Instantly
At: http://www.minicircuits.com
In Stock... Immediate Delivery
For Custom Versions Of Standard Models
Consult Our Applications Dept
Available Tape & Reel

SUNSTAR射频通信 http://www.rfoe.net/ TEL:0755-83397033 FAX:0755-83376182 E-MAIL: szss20@163.com