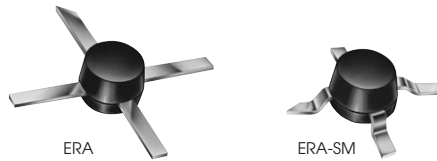


# MONOLITHIC AMPLIFIERS

50Ω

Drop-In & Surface Mount

## BROADBAND DC to 8 GHz



All specifications at 25°C

MODEL NO.	★ FREQ. GHz $f_1 - f_u$	GAIN, dB Typical								MAXIMUM POWER, dBm at 2 GHz*		DYNAMIC RANGE at 2 GHz*		VSWR Typ. (:1)		MAXIMUM RATING <sup>3</sup>		DC POWER at Pin 3		THERMAL RESISTANCE $\theta_{JC}$ , typ. °C/W	CAPD DATA (see RF/IF Designer handbook)	Case Style Note B	CONNECTION	Price \$ Qty. (30)				
		over frequency, GHz								Output (1 dB Comp.) Typ.	Input (no dmg.)	NF dB Typ.	IP3 dBm Typ.	In DC-3 3- $f_u$ ** GHz	Out DC-3 3- $f_u$ ** GHz	I mA	P mW	Current (mA) Typ.	Volt Typ.									
		0.1	1	2	3	4	6	8	Flatness Min. @ 2 GHz																DC-2 GHz			
ERA-1 99+	DC-8	12.2	12.1	11.8	11.5	11.3	11.0	10.2	9	±0.3	11.7	9.7	15	5.3	26	1.6	1.8	1.5	1.9	75	330	40	3.6	455	3-56	VV105	cb	Contact Sales Dept.
ERA-2 99+	DC-6	16.2	16.0	15.6	15.1	14.6	14.0	—	12	±0.3	12.8	11	15	4.7	26	1.4	1.4	1.4	1.6	75	330	40	3.6	455	3-56	VV105	cb	
ERA-3 99+	DC-3	22.9	22.2	20.8	19.2	—	—	—	17	±1.1	12.1	9	13	3.8	23	1.7	—	1.7	—	75	330	35	3.5	432	3-56	VV105	cb	
ERA-1SM 99+	DC-8	12.3	12.1	11.8	11.2	10.8	10.4	9.2	9	±0.3	11.3	9.3	15	5.5	26	1.6	1.9	1.5	1.9	75	330	40	3.6	460	3-56	WW107	cb	Contact Sales Dept.
ERA-2SM 99+	DC-6	16.2	15.8	15.2	14.4	13.6	13.0	—	12	±0.5	12.4	10.5	15	4.6	26	1.5	1.6	1.5	1.7	75	330	40	3.6	460	3-56	WW107	cb	
ERA-3SM 99+	DC-3	22.8	21.8	20.2	18.4	—	—	—	16	±1.3	11.5	9	13	3.8	23	1.5	—	1.5	—	75	330	35	3.5	437	3-56	WW107	cb	
ERA-4SM 99+	DC-4	14.0	13.8	13.5	13.2	12.7	—	—	11	±0.3	16.8	15	20	5.2	33	1.6	1.6	1.3	1.5	120	650	65	5.0	283	3-57	WW107	cb	

+ RoHS compliant in accordance with EU Directive (2002/95/EC)

The +Suffix has been added in order to identify RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications.

absolute maximum ratings  
 operating temperature: -45°C to 85°C  
 storage temperature: -65° to 150°C  
 device voltage: 3.0V min., 4.1V max. for ERA 1,2,3  
 4.2V min., 5.5V max. for ERA 4,5

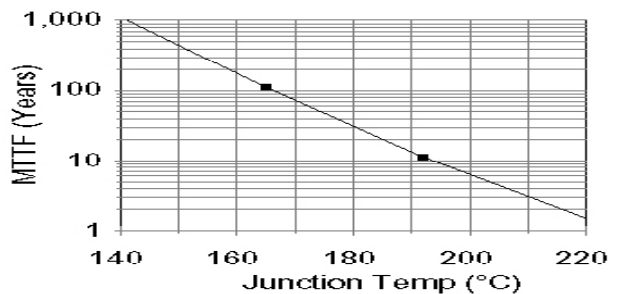
### marking identification

Model	Alphanumeric Code
ERA-1, ERA-1SM	E1
ERA-2, ERA-2SM	E2
ERA-3, ERA-3SM	E3
ERA-4, ERA-4SM	E4

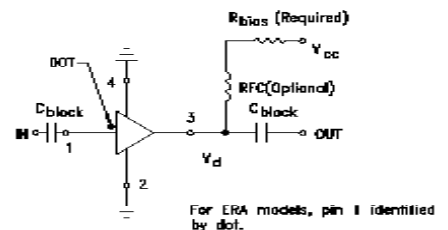
### NOTES:

- \* at 1 GHz for ERA 4, 5, 6, 4SM
  - \*\*  $f_u$  is the upper frequency limit for each model as shown in the table.
  - ★ 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. Model number designated by alphanumeric code marking.
  2. ERA-SM models available on tape and reel.
  3. Operation at max. rating will severely decrease MTTF (ref to MTTF graph)

### MTTF vs. JUNCTION TEMP. (ERA)



### Typical Biasing Configuration ERA



For ERA models, pin 1 identified by dot.

**Mini-Circuits®**  
 ISO 9001 ISO 14001 AS 9100 CERTIFIED

For detailed performance specs & shopping online see web site

P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661 The Design Engineers Search Engine **IC212** Provides ACTUAL Data Instantly at [minicircuits.com](http://minicircuits.com)

IF/RF MICROWAVE COMPONENTS

Notes: 1. Performance and quality attributes and conditions not expressly stated in this specification sheet are intended to be excluded and do not form a part of this specification sheet. 2. Electrical specifications and performance data contained herein are based on Mini-Circuit's applicable established test performance criteria and measurement instructions. 3. The parts covered by this specification sheet are subject to Mini-Circuits standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuits' website at [www.minicircuits.com/MCLStore/terms.jsp](http://www.minicircuits.com/MCLStore/terms.jsp).

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