

5 TO 500 MHz TO-8 CASCADABLE AMPLIFIERS

Typical Values

**High Performance Thin Film
Available in Surface Mount**

SPECIFICATIONS

* Measured in a 50-ohm system at +15 Vdc unless otherwise specified.

INTERMODULATION PERFORMANCE

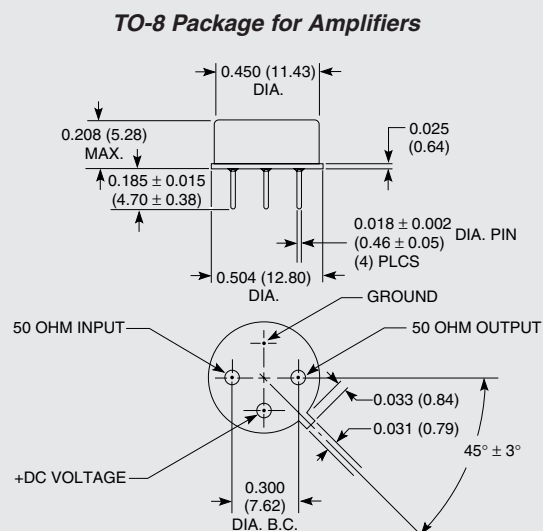
Typical @ 25° C

ABSOLUTE MAXIMUM RATINGS

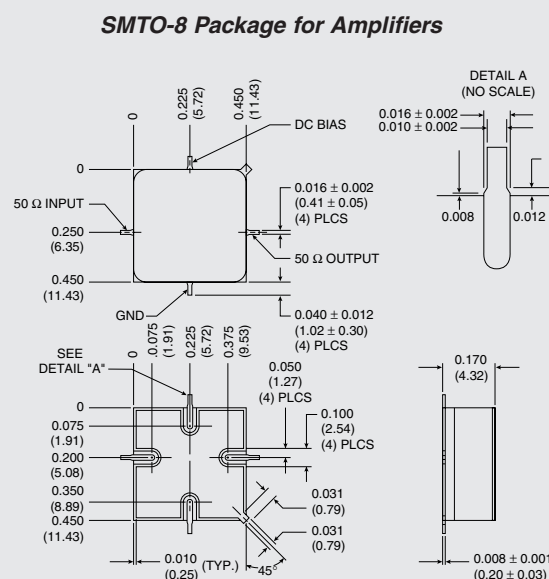
Storage Temperature	-62 to 125° C
Maximum Case Temperature	+125° C
Maximum DC Voltage	+19 Volts
Maximum Continuous RF Input Power	+13 dBm
Maximum Short Term Input Power (1 Minute Max.) . . .	100 Milliwatts
Maximum Peak Power (3 μ sec Max.)	0.5 Watt
Burn-in Temperature (AC518/AC519)	+85° C/+105° C
Thermal Resistance¹ (θ_{jc} ; AC518)	+35° C/Watt
Thermal Resistance¹ (θ_{jc} ; AC519)	+20° C/Watt
Junction Temperature Rise Above Case (T_{jc} ; AC518) ..	+50° C
Junction Temperature Rise Above Case (T_{jc} ; AC519) ..	+37.4° C

¹ Thermal resistance is based on total power dissipation.

AC518/AC519



AS518/AS519

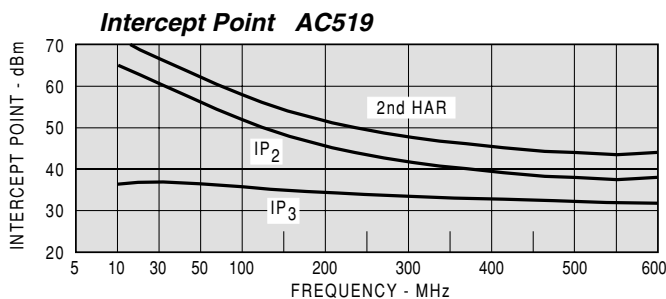
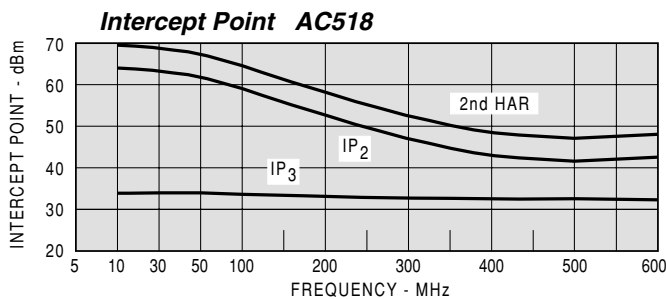
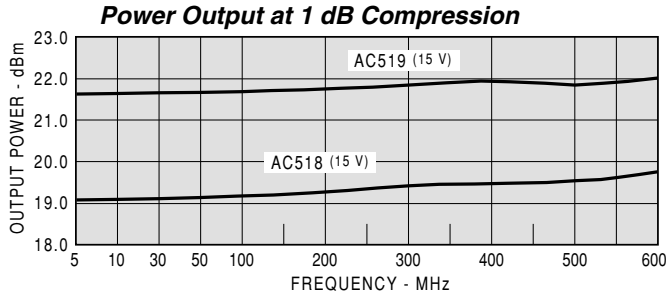
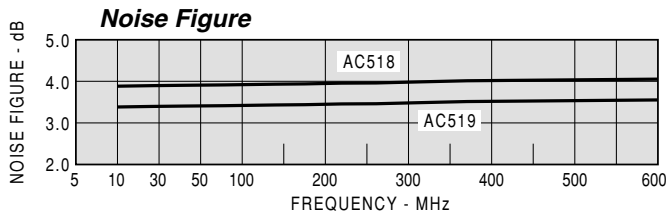
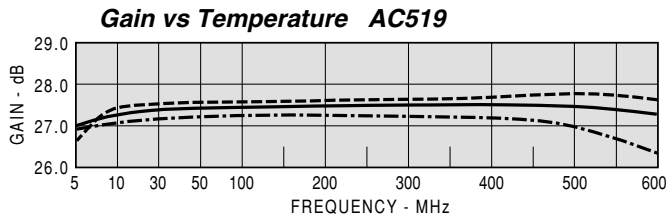
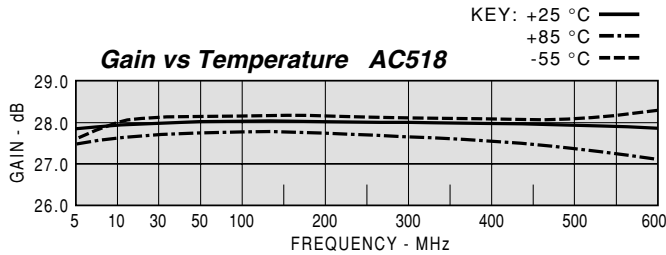


DIMENSIONS ARE IN INCHES (MILLIMETERS)

AC518/AC519



TYPICAL PERFORMANCE



TYPICAL AUTOMATIC TEST DATA

Model: AC519			Vcc=+15V			Icc=129.18	
FREQ	SWR	SWR	GAIN	PHASE	GROUP DELAY	REV/ISO	
MHZ	IN	OUT	DB	DEG	NSEC	DB	
5	1.09	1.09	26.88	36		-37.1	
10	1.12	1.05	27.27	16		-37.0	
20	1.15	1.03	27.43	4	3.4	-37.0	
50	1.17	1.05	27.51	-11	1.4	-36.7	
100	1.19	1.06	27.48	-29	0.97	-36.7	
200	1.26	1.07	27.43	-60	0.88	-36.9	
300	1.34	1.10	27.36	-92	0.86	-36.7	
400	1.42	1.17	27.32	-123	0.87	-36.6	
500	1.44	1.27	27.27	-155	0.89	-36.1	
600	1.39	1.46	27.26	172	0.92	-35.2	
700	1.27	1.82	27.20	137	0.98	-34.0	

Model: AC519			Vcc=+15V			Icc=129.18	
FREQ	S11	S21	S12	S22			
MHz	MAG	ANG	MAG	ANG	MAG	ANG	
5	0.04	-53.0	22.09	35.7	0.014	35.0	0.04
10	0.06	-13.2	23.11	16.1	0.014	17.6	0.02
20	0.07	-8.6	23.53	3.7	0.014	10.6	0.02
50	0.08	-19.4	23.73	-11.4	0.015	0.5	0.02
100	0.09	-36.7	23.67	-28.8	0.015	-6.8	0.03
200	0.11	-64.5	23.53	-60.5	0.014	-17.1	0.04
300	0.15	-84.1	23.35	-91.5	0.015	-24.1	0.05
400	0.17	-102.4	23.21	-122.9	0.015	-32.3	0.08
500	0.18	-122.2	23.10	-154.8	0.016	-40.8	0.12
600	0.16	-148.9	23.08	172.0	0.017	-54.9	0.19
700	0.12	163.0	22.91	136.7	0.020	-69.6	0.29

Model: AC519			Vcc=+12V			Icc=102.49	
FREQ	SWR	SWR	GAIN	PHASE	GROUP DELAY	REV/ISO	
MHZ	IN	OUT	DB	DEG	NSEC	DB	
5	1.11	1.11	26.71	35		-37.1	
10	1.14	1.06	27.10	16		-36.7	
20	1.16	1.04	27.26	3	3.4	-36.6	
50	1.18	1.05	27.33	-12	1.4	-36.6	
100	1.20	1.06	27.30	-29	0.97	-36.8	
200	1.28	1.09	27.25	-61	0.89	-36.2	
300	1.37	1.13	27.17	-92	0.87	-36.4	
400	1.45	1.20	27.12	-124	0.88	-35.9	
500	1.47	1.32	27.09	-156	0.9	-35.7	
600	1.43	1.53	27.09	170	0.93	-34.6	
700	1.33	1.94	27.02	134	1	-33.8	

Model: AC518			Vcc=+15V			Icc=96.59	
FREQ	SWR	SWR	GAIN	PHASE	GROUP DELAY	REV/ISO	
MHZ	IN	OUT	DB	DEG	NSEC	DB	
5	1.24	1.07	27.71	30		-37.6	
10	1.13	1.15	27.84	13		-37.1	
20	1.08	1.18	27.91	2	3	-36.7	
50	1.08	1.19	27.94	-11	1.3	-36.8	
100	1.11	1.20	27.93	-28	0.9	-36.9	
200	1.20	1.21	27.96	-58	0.84	-36.6	
300	1.31	1.20	28.01	-88	0.84	-36.0	
400	1.38	1.21	28.04	-119	0.86	-35.9	
500	1.45	1.24	28.01	-151	0.89	-35.6	
600	1.53	1.40	27.84	175	0.93	-34.2	
700	1.76	1.77	27.44	140	0.97	-33.7	

Model: AC518			Vcc=+15V			Icc=96.59	
FREQ	S11	S21	S12	S22			
MHz	MAG	ANG	MAG	ANG	MAG	ANG	
5	0.11	-109.0	24.28	30.1	0.013	37.2	0.03
10	0.06	-127.0	24.66	12.8	0.014	17.7	0.07
20	0.04	-157.0	24.85	2.1	0.015	10.7	0.08
50	0.04	157.5	24.94	-11.5	0.014	0.6	0.09
100	0.05	128.0	24.91	-27.7	0.014	-0.6	0.09
200	0.09	106.5	25.01	-57.9	0.015	-10.1	0.09
300	0.13	97.5	25.14	-88.1	0.016	-10.7	0.09
400	0.16	93.6	25.24	-119.1	0.016	-17.0	0.09
500	0.18	94.6	25.16	-151.1	0.017	-26.6	0.11
600	0.21	103.0	24.66	175.3	0.019	-38.5	0.17
700	0.27	113.5	23.55	140.4	0.021	-51.5	0.28

Model: AC518			Vcc=+12V			Icc=76.42	
FREQ	SWR	SWR	GAIN	PHASE	GROUP DELAY	REV/ISO	
MHZ	IN	OUT	DB	DEG	NSEC	DB	
5	1.24	1.07	27.51	29		-37.4	
10	1.12	1.15	27.65	13		-37.1	
20	1.07	1.17	27.72	2	2.9	-37.2	
50	1.06	1.19	27.75	-12	1.3	-36.6	
100	1.09	1.19	27.74	-28	0.9	-36.7	
200	1.18	1.21	27.78	-58	0.84	-36.9	
300	1.27	1.22	27.85	-89	0.85	-36.3	
400	1.34	1.22	27.90	-120	0.87	-35.7	
500	1.43	1.26	27.89	-152	0.9	-34.8	
600	1.55	1.42	27.72	174	0.95	-34.3	
700	1.85	1.81	27.29	138	0.98	-33.2	