

10A060

6 Watts, 20 Volts, Class A
Linear to 1000 MHz

GENERAL DESCRIPTION

The 10A060 is a COMMON EMITTER transistor capable of providing 6 Watts of Class A, RF output power to 1000 MHz. This transistor is specifically designed for general Class A amplifier applications. It utilizes gold metalization and diffused ballasting to provide high reliability and supreme ruggedness.

ABSOLUTE MAXIMUM RATINGS

Maximum Power Dissipation @ 25°C 21 Watts

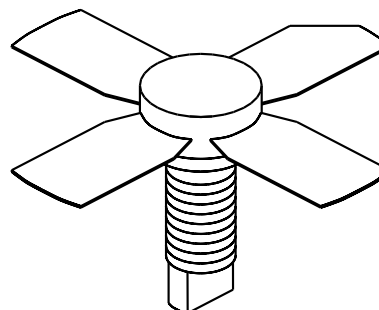
Maximum Voltage and Current

BVces	Collector to Emitter Voltage	50 Volts
BVebo	Emitter to Base Voltage	3.5 Volts
Ic	Collector Current	3.0 Amps

Maximum Temperatures

Storage Temperature	- 65 to + 150°C
Operating Junction Temperature	+ 200°C

CASE OUTLINE 55FT, STYLE 2



ELECTRICAL CHARACTERISTICS @ 25 °C

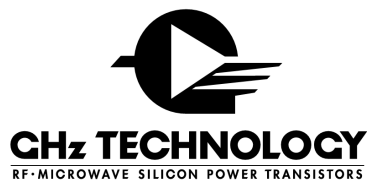
SYMBOL	CHARACTERISTICS	TEST CONDITIONS	MIN	TYP	MAX	UNITS
Pout	Power Out	F = 1 GHz	6.0			Watts
Pin	Power Input	Ic = 880 mA			0.95	Watts
Pg	Power Gain	Vcc = 20 Volts	8.0	8.5		dB
VSWR	Load Mismatch Tolerance				10:1	

BVebo	Emitter to Base Breakdown	Ie = 4 mA	3.5			Volts
BVces	Collector to Emitter Breakdown	Ic = 40 mA	50			Volts
BVceo	Collector to Emitter Breakdown	Ic = 40 mA	24			Volts
hFE	DC Current Gain	Vce = 5 V, Ic = 400 mA	20			
Cob	Output Capacitance	Vcb = 28 V, f = 1 MHz		10.8		pF
θjc	Thermal Resistance			6.0	8.3	°C/W

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GHz Technology Inc. 3000 Oakmead Village Drive, Santa Clara, CA 95051-0808 Tel. 408 / 986-8031 Fax 408 / 986-8120



10A060-2 (20V , 0.88A)

MMICAD for Windows Fri Jul 08 09:08:19 1994

CIRCUIT: MES

FREQ	--- S11 ---		--- S21 ---		--- S12 ---		--- S22 ---	
MHz	MAG	ANG	MAG	ANG	MAG	ANG	MAG	ANG
0.100	0.94271	-179.573	7.12288	96.5812	0.01233	33.7103	0.65876	-167.948
0.200	0.94727	177.858	3.62706	85.4778	0.01647	47.8074	0.67089	-175.431
0.300	0.95070	175.505	2.43251	77.9640	0.02142	55.0390	0.67357	-178.205
0.400	0.95041	173.576	1.83322	71.6625	0.02655	58.3877	0.67753	179.766
0.500	0.94994	171.682	1.47310	65.8580	0.03196	61.7919	0.67968	178.147
0.600	0.94891	169.677	1.22939	60.2535	0.03781	62.8415	0.68417	176.702
0.700	0.94871	167.771	1.05741	54.8390	0.04404	62.8241	0.68874	175.321
0.800	0.94922	166.042	0.92763	49.6810	0.05024	61.5847	0.69219	173.913
0.900	0.94826	164.053	0.82656	44.8156	0.05539	60.8856	0.69672	172.527
1.000	0.94768	162.008	0.74603	40.1010	0.06133	60.6678	0.70214	171.294
1.100	0.94625	160.046	0.67929	35.5930	0.06750	59.7681	0.70830	169.944
1.200	0.94374	158.140	0.62325	31.3563	0.07362	58.9085	0.71639	168.543
1.300	0.94531	156.152	0.57768	27.3923	0.08065	57.9289	0.72283	167.093
1.400	0.94555	154.251	0.53768	23.6191	0.08711	56.4243	0.73219	165.498
1.500	0.94592	152.071	0.50349	19.9982	0.09428	55.1832	0.73909	163.888
1.600	0.94633	149.927	0.47263	16.6599	0.10148	53.8199	0.74559	162.202
1.700	0.94599	147.693	0.44551	13.5279	0.10844	52.1853	0.75251	160.556
1.800	0.94481	145.266	0.42183	10.7585	0.11624	50.5467	0.76093	159.086
1.900	0.94402	143.041	0.40145	8.31590	0.12442	48.9853	0.76754	157.185
2.000	0.94419	140.703	0.38429	6.10001	0.13302	47.2784	0.77503	155.615
2.100	0.94370	138.110	0.36947	3.87082	0.14146	45.1797	0.78561	153.938
2.200	0.94023	135.581	0.35630	1.65459	0.14990	42.9679	0.79686	151.980
2.300	0.93548	132.993	0.34411	-0.25137	0.15902	41.0646	0.80921	149.678
2.400	0.93254	130.426	0.33311	-1.96004	0.16785	39.0122	0.81694	147.278
2.500	0.92767	128.017	0.32451	-3.38401	0.17831	36.8112	0.82221	144.669
2.600	0.92883	125.459	0.31791	-4.56093	0.18803	34.6957	0.82413	142.309
2.700	0.92688	122.824	0.31318	-5.88049	0.19912	32.1332	0.82678	139.708
2.800	0.92422	120.051	0.30902	-7.08452	0.20989	29.5946	0.82748	136.917
2.900	0.91917	117.395	0.30597	-8.05195	0.22055	27.1436	0.82550	134.192
3.000	0.91601	114.692	0.30506	-8.93238	0.23205	24.6123	0.82134	131.416