ABSOLUTE MAXIMUM RATINGS (Ambient Temperature Ta = 25° C)

Item	Symbol	Condition	Rating	Unit
Drain-Source Voltage	V_{DS}		15	V
Gate-Source Voltage	V_{GS}		-5	V
Total Power Dissipation	P_T	Tc=25°C	7.5	W
Storage Temperature	T_{stg}		-65 to +175	°C
Channel Temperature	T_{ch}		175	°C

Fujitsu recommends the following conditions for the reliable operation of GaAs FETs:

1. The drain - source operating voltage (V_{DS}) should not exceed 10 volts.
2. The forward and reverse gate currents should not exceed 2.0 and -0.5 mA respectively with gate resistance of 500Ω.

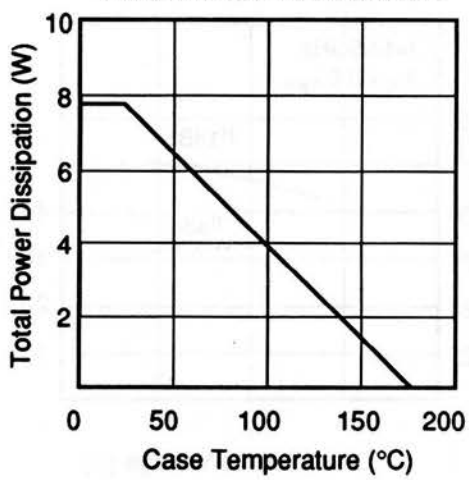
ELECTRICAL CHARACTERISTICS (Ambient Temperature Ta = 25° C)

Item	Symbol	Test Conditions	Limit			Unit
			Min.	Typ.	Max.	
Saturated Drain Current	I_{DSS}	V_{DS} = 5V, V_{GS} = 0V	-	400	600	mA
Transconductance	g_m	V_{DS} = 5V, I_{DS} = 250mA	-	200	-	mS
Pinch-off Voltage	V_P	V_{DS} = 5V, I_{DS} = 20mA	-1.0	-2.0	-3.5	V
Gate-Source Breakdown Voltage	V_{GSO}	I_{GS} = -20μA	-5	-	-	V
Output Power at 1dB G.C.P.	P_{1dB}	V_{DS} =10V, I_{DS}= 0.6 I_{DSS} (Typ.), f = 12.5 GHz	29	30	-	dBm
Power Gain at 1dB G.C.P.	G_{1dB}		6.5	7.5	-	dB
Power added Efficiency	η_{add}		-	33	-	%
Thermal Resistance	R_{th}	Channel to Case	-	15	20	°C/W

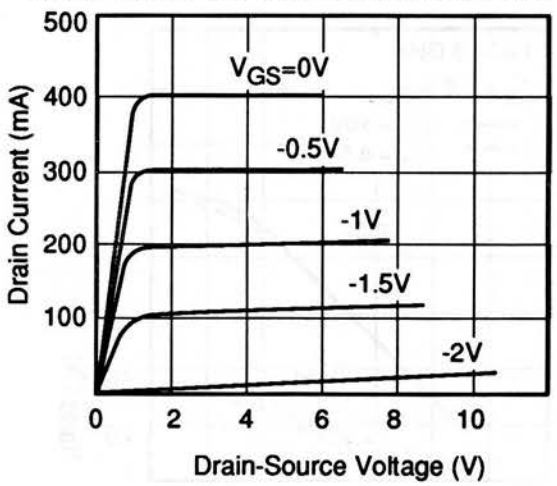
CASE STYLE: MH

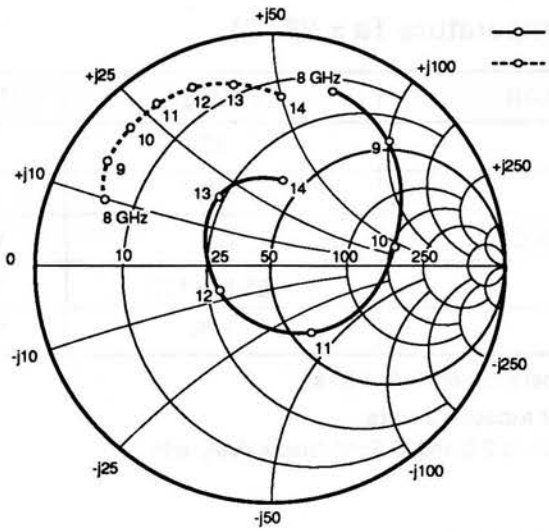
G.C.P: Gain Compression Point

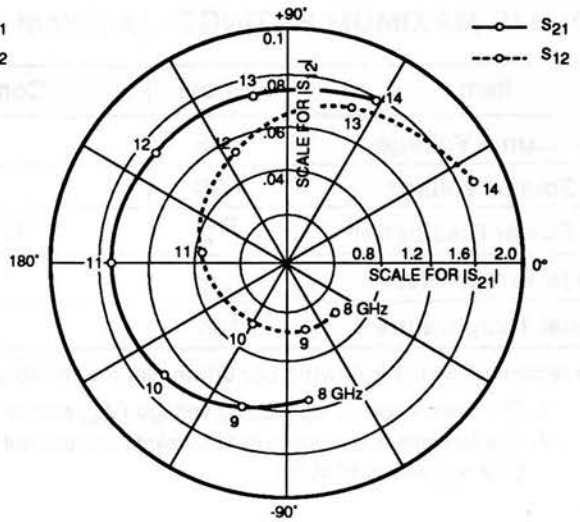
POWER DERATING CURVE



DRAIN CURRENT vs. DRAIN-SOURCE VOLTAGE



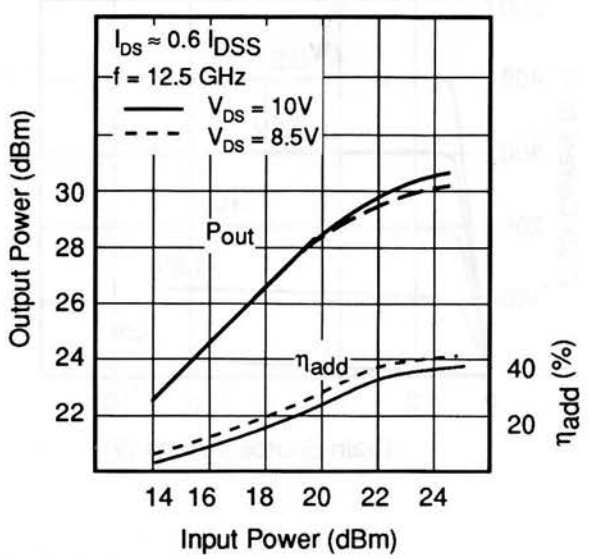




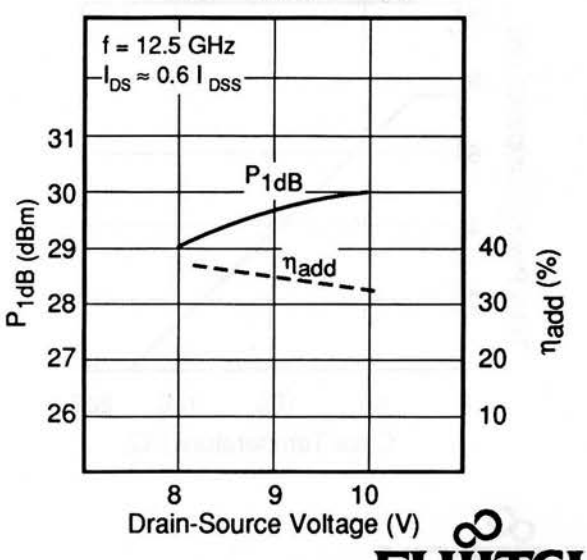
S-PARAMETERS
V_{DS} = 10V, I_{DS} = 250mA

FREQUENCY (MHz)	S_{11}		S_{21}		S_{12}		S_{22}	
	MAG	ANG	MAG	ANG	MAG	ANG	MAG	ANG
500	.826	-85.3	8.760	130.9	.021	38.4	.288	-45.3
1000	.860	-134.2	5.900	98.7	.028	16.6	.275	-73.4
8000	.827	70.4	1.136	-82.1	.028	-44.3	.798	157.4
8500	.786	59.0	1.166	-94.8	.028	-57.4	.822	151.7
9000	.731	45.8	1.218	-108.5	.028	-74.9	.841	146.0
9500	.659	29.7	1.289	-123.5	.028	-96.5	.856	140.1
10000	.566	9.7	1.372	-140.4	.029	-124.7	.868	134.1
10500	.447	-16.1	1.448	-159.4	0.32	-156.8	.876	128.1
11000	.321	-52.8	1.496	-180.0	.038	171.2	.876	122.1
11500	.253	-106.7	1.504	159.1	.045	141.0	.869	116.4
12000	.286	-159.9	1.477	138.8	.053	114.6	.859	110.7
12500	.355	162.9	1.445	119.3	.062	91.5	.846	105.1
13000	.407	134.5	1.440	100.3	.070	69.7	.827	99.3
13500	.422	108.5	1.475	81.5	.079	47.4	.799	93.7
14000	.382	77.4	1.561	60.2	.087	23.6	.759	87.3

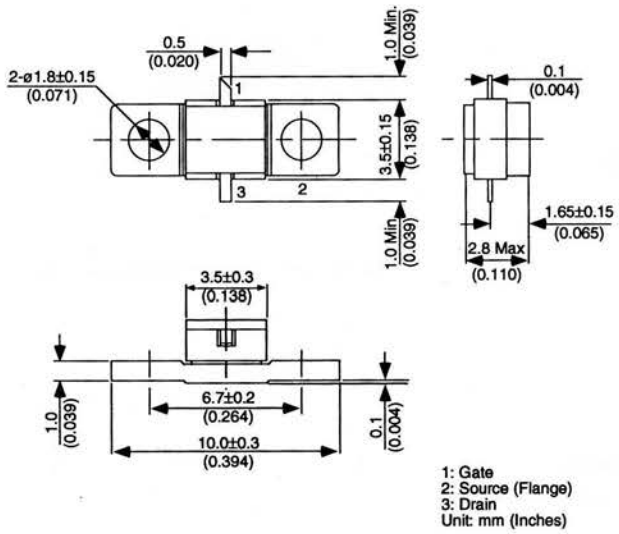
OUTPUT POWER vs. INPUT POWER



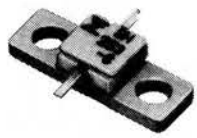
P_{1DB} & η_{add} vs. V_{DS}



Case Style "MH"
Metal-Ceramic Hermetic Package



1: Gate
2: Source (Flange)
3: Drain
Unit: mm (Inches)



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