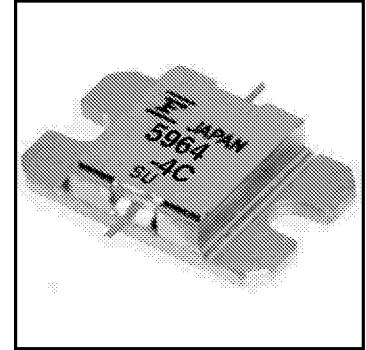


FEATURES

- High Output Power: $P_{1dB} = 36dBm$ (Typ.)
- High Gain: $G_{1dB} = 9.0dB$ (Typ.)
- High PAE: $\eta_{add} = 32%$ (Typ.)
- Broad Band: 5.9 ~ 6.4GHz
- Impedance Matched $Z_{in}/Z_{out} = 50\Omega$
- Hermetically Sealed Package



DESCRIPTION

The FLM5359-4C is a power GaAs FET that is internally matched for standard communication bands to provide optimum power and gain in a 50 ohm system.

Fujitsu's stringent Quality Assurance Program assures the highest reliability and consistent performance.

ABSOLUTE MAXIMUM RATING (Ambient Temperature $T_a=25^\circ C$)

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

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 8.0 and -2.2 mA respectively with gate resistance of 100Ω .

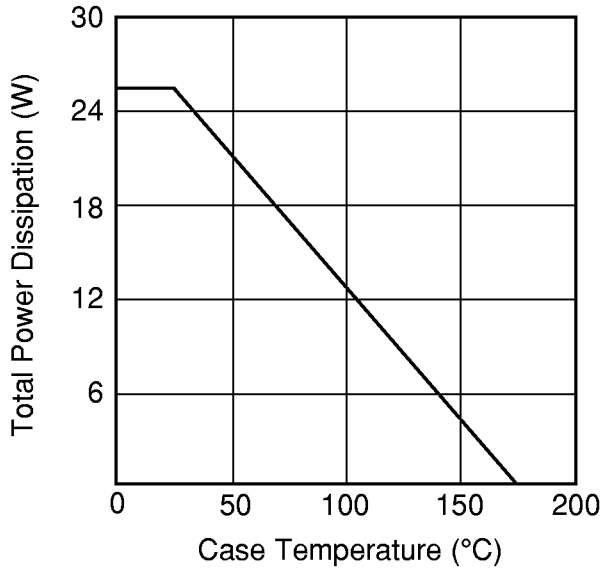
ELECTRICAL CHARACTERISTICS (Ambient Temperature $T_a=25^\circ C$)

Item	Symbol	Test Conditions	Limit			Unit
			Min.	Typ.	Max.	
Saturated Drain Current	I_{DSS}	$V_{DS} = 5V, V_{GS} = 0V$	-	1800	2700	mA
Transconductance	g_m	$V_{DS} = 5V, I_{DS} = 1100mA$	-	1000	-	mS
Pinch-off Voltage	V_p	$V_{DS} = 5V, I_{DS} = 90mA$	-1.0	-2.0	-3.5	V
Gate Source Breakdown Voltage	V_{GSO}	$I_{GS} = -90\mu A$	-5	-	-	V
Output Power at 1dB G.C.P.	P_{1dB}	$V_{DS} = 10V$ $I_{DS} \approx 0.6 I_{DSS}$ (Typ.), $f = 5.9 \sim 6.4 GHz,$ $Z_S = Z_L = 50 ohm$	35	36	-	dBm
Power Gain at 1dB G.C.P.	G_{1dB}		8.0	9.0	-	dB
Drain Current	I_{dsr}		-	1100	1300	mA
Power-added Efficiency	η_{add}		-	32	-	%
Thermal Resistance	R_{th}		Channel to Case	-	5	6

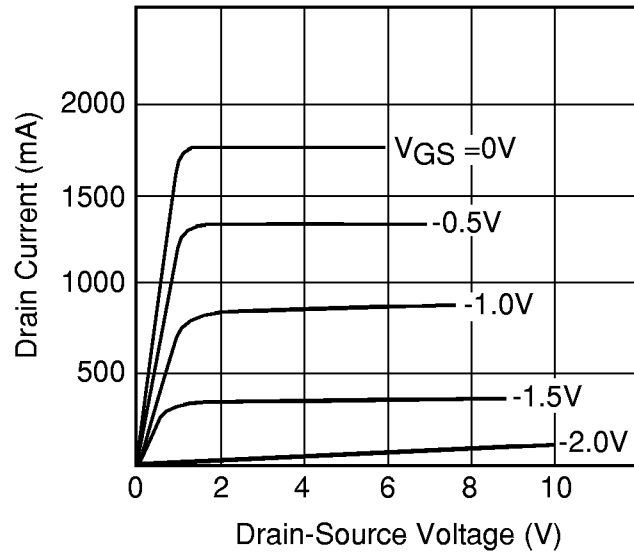
CASE STYLE: IB

G.C.P.: Gain Compression Point

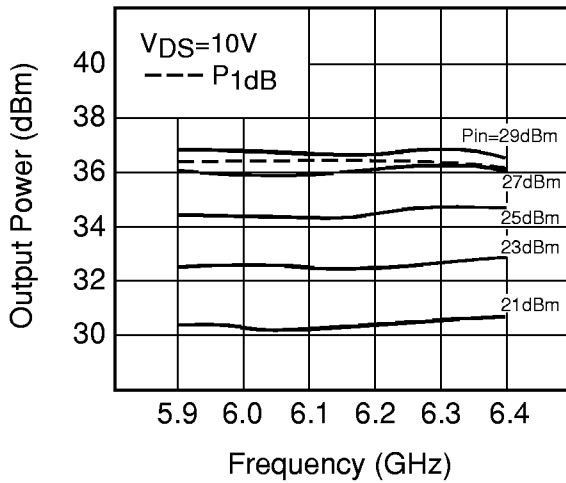
POWER DERATING CURVE



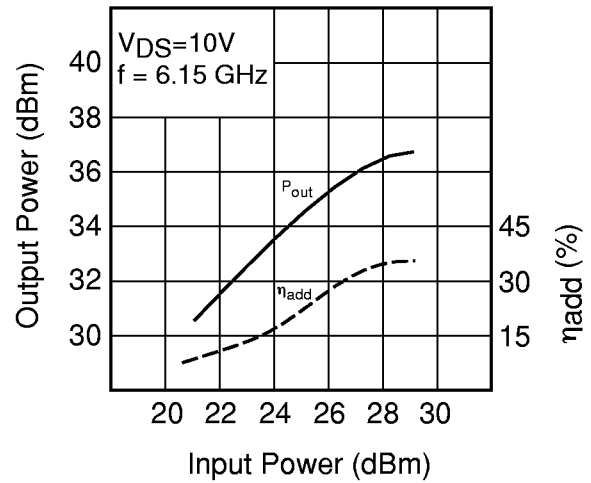
DRAIN CURRENT vs. DRAIN-SOURCE VOLTAGE

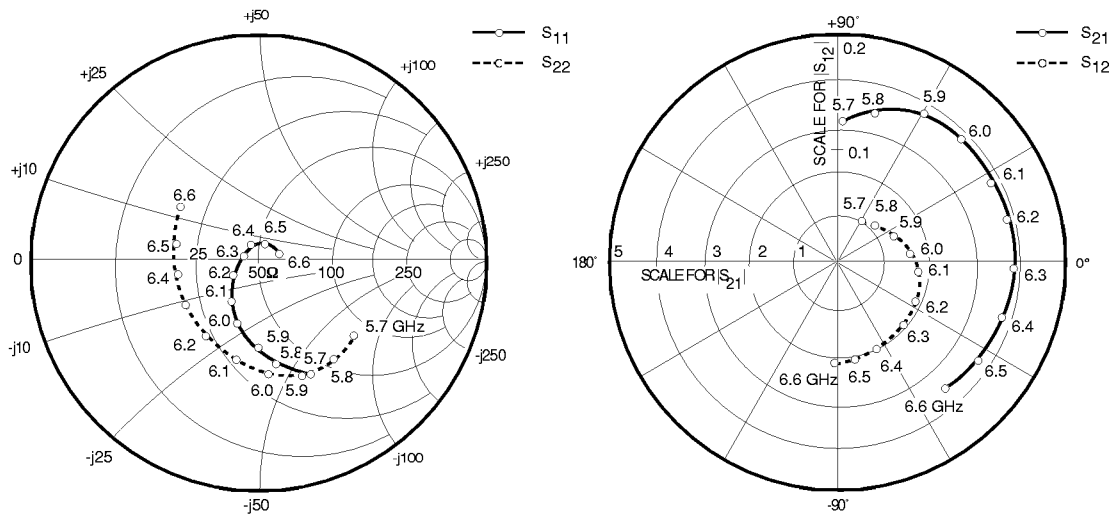


OUTPUT POWER vs. FREQUENCY



OUTPUT POWER vs. INPUT POWER



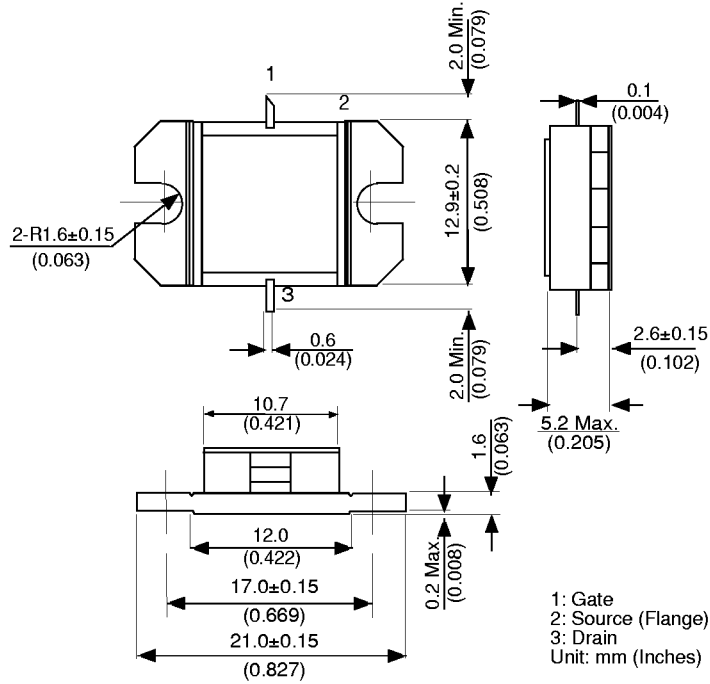


S-PARAMETERS

$V_{DS} = 10V, I_{DS} = 1100mA$

FREQUENCY (MHZ)	S11		S21		S12		S22	
	MAG	ANG	MAG	ANG	MAG	ANG	MAG	ANG
5700	.50	-69	3.08	89	.03	62	.54	-37
5800	.46	-82	3.35	75	.04	44	.52	-51
5900	.39	-97	3.59	59	.05	25	.51	-67
6000	.32	-114	3.76	44	.06	6	.49	-84
6100	.23	-131	3.82	27	.06	-11	.47	-104
6200	.14	-156	3.86	13	.07	-27	.44	-125
6300	.06	168	3.85	-3	.07	-46	.43	-148
6400	.06	111	3.76	-18	.08	-63	.42	-169
6500	.07	59	3.55	-35	.08	-78	.42	170
6600	.08	23	3.45	-49	.08	-91	.45	150

Case Style "IB"
Metal-Ceramic Hermetic Package



2