FUJITSU

FLM 5964-8C

INTERNALLY MATCHED GaAs POWER FET

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

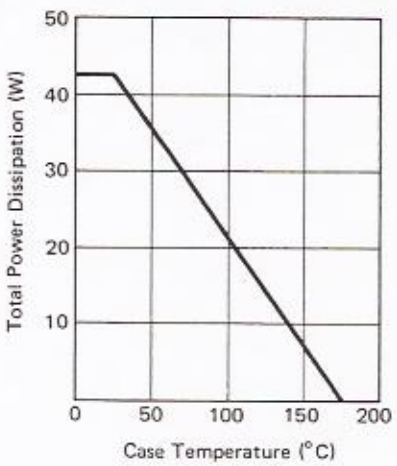
Item	Symbol	Condition	Rating	Unit
Drain-Source Voltage	V_{DS}		15	V
Gate-Source Voltage	V_{GS}		−5	V
Total Power Dissipation	P_T	T_C = 25°C	42.8	W
Storage Temperature	T_{stg}		−65 ~ +175	°C
Channel Temperature	T_{ch}		+175	°C

ELECTRICAL CHARACTERISTICS (Ambient Temperature Ta = 25°C)

Item	Symbol	Test Conditions	Limit			Unit
			Min.	Typ.	Max.	
Drain Current	I_{DSS}	V_{DS} = 5V, V_{GS} = 0V	—	3600	5400	mA
Transconductance	g_m	V_{DS} = 5V, I_{DS} = 2200mA	—	2000	—	mS
Pinch-off Voltage	V_P	V_{DS} = 5V, I_{DS} = 180mA	−1.0	−2.0	−3.5	V
Gate-Source Breakdown Voltage	V_{GSO}	I_{GS} = −180μA	−5	—	—	V
Output Power at 1dB G.C.P.	P_{1dB}	V_{DS} = 10V f = 5.9 ~ 6.4GHz $I_{DS} \cong 0.6 I_{DSS}$ $Z_S = Z_L$ = 50 ohm	38	39	—	dBm
Power Gain at 1dB G.C.P.	G_{1dB}		7	8	—	dB
Drain Current	I_{dsr}		—	2200	2600	mA
Power-added Efficiency	η_{add}		—	30	—	%
Thermal Resistance	R_{th}	Channel to Case	—	3	3.5	°C/W

G.C.P.: Gain Compression Point

POWER DERATING CURVE



DRAIN CURRENT vs. DRAIN-SOURCE VOLTAGE