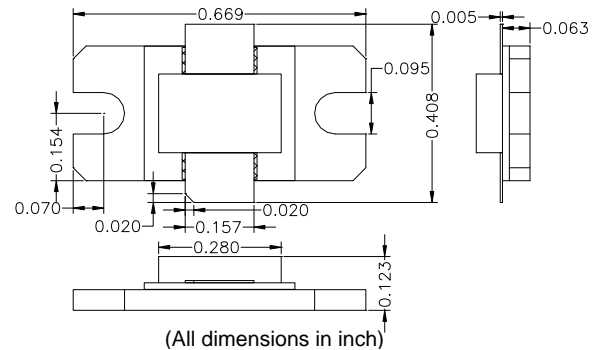




DESCRIPTION

AMCOM's AM200MX-CU-R is a part of the CU series of GaAs MESFETs. This part has a total gate width of 20mm. The AM200MX-CU-R is designed for high power microwave applications, operating up to 6GHz. The CU series is in a specially designed ceramic package with straight leads and flange in a drop-in mounting style. The flange at the bottom of the package serves simultaneously as DC ground, RF ground and thermal path. This FET is RoHS Compliant.



FEATURES

- High Frequency Operation up to 6GHz
- High Gain and High Power, $P_{1dB}=38dBm$ @3.5GHz
- Plastic Package for Low Cost
- 3 Heat Sink Paths for Effective Heat Removal

APPLICATIONS

- Wireless Local Loop Network
- PCS Base Stations
- WLAN, Repeaters & HYPERLAN
- C-Band VSAT

RF PERFORMANCE @ 3.5 GHz, ($V_{ds} = 7V$, $I_{ds} = 0.5 I_{dss}$)

Parameters	MIN	TYP
P_{1dB} * (dBm)	36.5	38
Eff @ P_{1dB}	30%	35%
Small Signal Gain (dB)	9	10
IP3 (dBm)	46	48

* Power typically remains the same as frequency changes.

ABSOLUTE MAXIMUM RATING

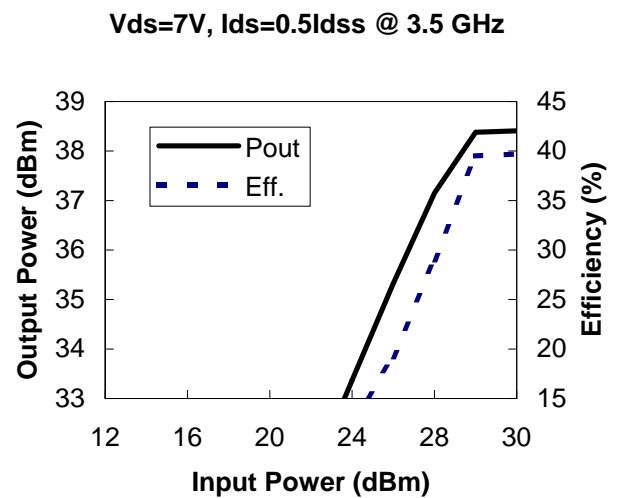
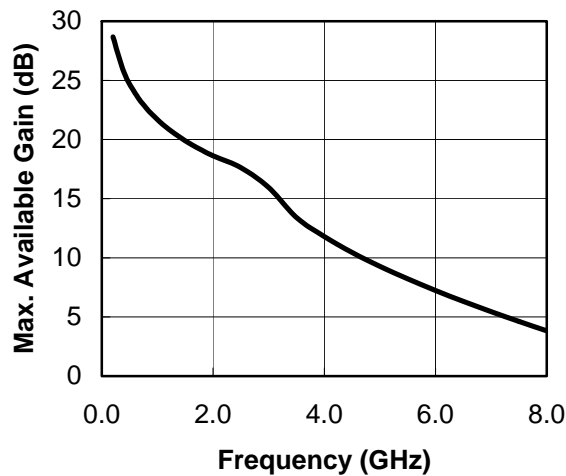
Parameters	Sym	Rating
Drain-Source Voltage (V)	V_{ds}	9
Gate-Source Voltage (V)	V_{gs}	-5
Drain Current (mA)	I_{ds}	6200
Continuous Dissipation At Room Temp. (W)	P_t	32
Operating Temp. (°C)	T_A	-55 to +85
Max. Channel Temp. (°C)	T_{ch}	+175

DC PARAMETERS

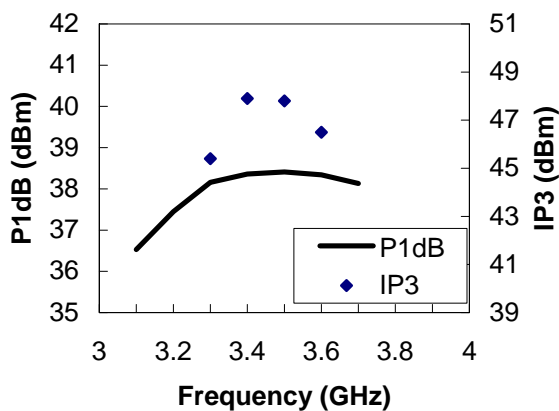
Parameters	Conditions	MIN	TYP	MAX
Saturation Current I_{dss} (mA)	$V_{ds} = 3V$ $V_{gs} = 0V$	3600	4500	6200
Pinch-off Voltage V_p (V)	$V_{ds} = 3V$ $I_{ds} = 2.5\% I_{dss}$	-2.6	-2	-1.0
Drain to Gate Breakdown Voltage BV_{gd} (V)	$I_{dg} = 1mA/mm$	11	15	
Drain to Source Voltage V_{ds} (V)	Mounted on Heat Sink		7	
Thermal Resistance (°C/W)		4.4		

S-Parameters for AM200MX-CU-R @ 7V / 0.5 I_{dss} (s2p file downloadable from the web)

Freq (MHz)	MAG (S11)	ANG(S11)	MAG (S21)	ANG(S21)	MAG (S12)	ANG(S12)	MAG (S22)	ANG(S22)
1000	0.97	-178.52	1.48	75.22	0.01	-12.06	0.88	175.41
2000	0.96	171.6	0.86	54.03	0.01	-30.55	0.87	169.68
3000	0.95	162.2	0.75	31.53	0.01	-50.35	0.84	162.94
4000	0.91	148.62	0.88	3.43	0.02	-75.75	0.77	153.88
5000	0.80	119.17	1.38	-40.3	0.04	-116.79	0.61	139.2
6000	0.50	-4.98	2.12	-130.88	0.08	155.29	0.12	108.15
7000	0.82	-126.48	0.94	134.83	0.04	63.66	0.55	-134.31
8000	0.91	-154.95	0.36	88.44	0.02	19.9	0.79	-154.45



V_{ds}=7V, I_{ds}=0.5I_{dss} Test CKT @ 3.5 GHz



Specifications subject to change without notice.