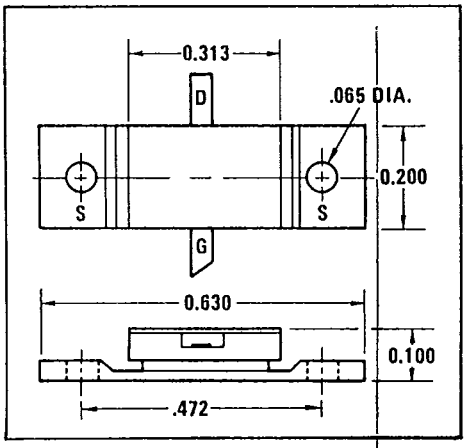
Raytheon Company
Special Microwave
Devices Operation
Bearfoot Road
Northborough, MA 01532
617 393 7300

T-39-11

RPS2030
S-Band Power FET

- High breakdown voltage
- Stability under all DC bias and operating conditions
- Resistance to burn-out caused by RF overdrive or mismatch
- Exclusive "via hole" source connections
- Low thermal resistance
- Integral plated heat sink
- Dielectric passivation

TYPE 01
HERMETICALLY-SEALED PACKAGE



MAXIMUM RATINGS RPS2030

PARAMETER	SYMBOL	LIMIT
Drain — Source voltage	V_{DS}	15 V
Gate — Drain voltage	V_{GO}	−10 V
Gate — Source voltage	V_{GS}	−10 V
Total Power Dissipation	P_T	50 W
Channel Temperature	T_{CH}	+175° C
Storage Temperature	T_{STG}	−65°C to +175°C

Parameter	Symbol	Test Conditions	MIN	TYP	MAX	UNIT
Saturated Drain Current	I_{DSS}	V_{DS} = 5 V, V_{GS} = 0 V	3200	4800	7200	MA
Pinch-Off Voltage	V_P	V_{DS} = 5 V, I_{DS} = 4% of I_{DSS} typ	3	5	8	V
Transconductance	g_m	V_{DS} = 5 V V_{GD} = −0.5 to −1.0 V	800	1200		MMO
Output Power	P_O	V_{DS} = 10 V, I_{DS} ≈ 0.5 I_{DSS} f = 2.5 GHz	39	40		dBm
Gain at Rated Power	G_O	V_{DS} = 10 V, I_{DS} ≈ 0.5 I_{DSS} f = 2.5 GHz	8	10		dB

Printed in U.S.A. 6/85