

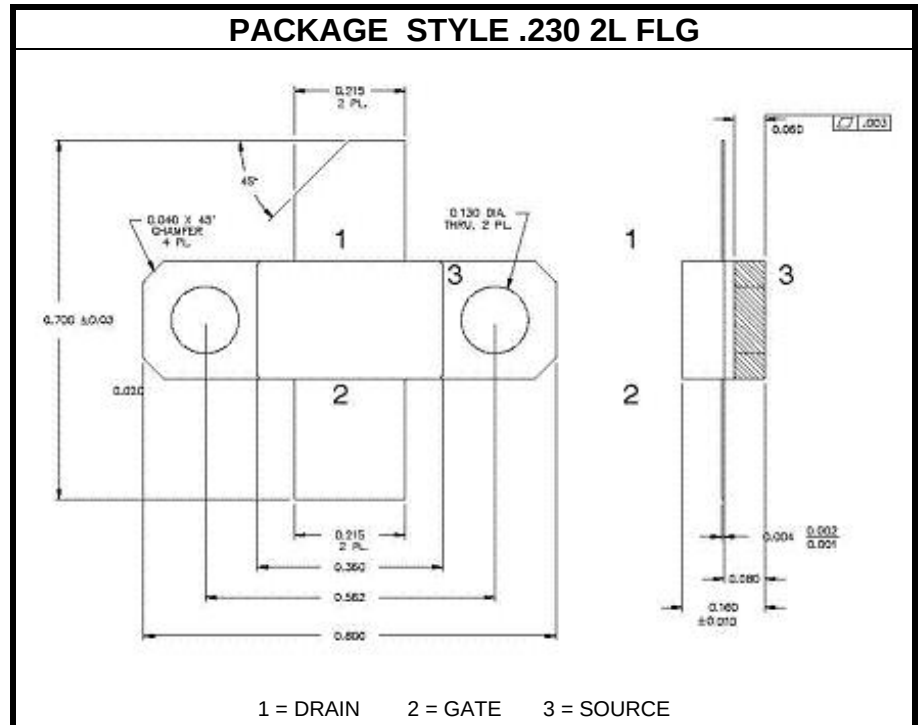
RF FIELD-EFFECT POWER TRANSISTOR

DESCRIPTION:

The **ASI MRF9045LR1** is a high voltage, gold-metallized, laterally diffused metal oxide semiconductor. Ideal for today's RF power amplifier Applications.

MAXIMUM RATINGS

I_D	4.25 A
V_{DSS}	65 V
V_{GS}	-0.5, +15 V
P_{DISS}	117 W @ $T_C = 25^\circ\text{C}$
T_J	-65°C to $+200^\circ\text{C}$
T_{STG}	-65°C to $+150^\circ\text{C}$
θ_{JC}	1.5°C/W



CHARACTERISTICS $T_C = 25^\circ\text{C}$

SYMBOL	TEST CONDITIONS		MINIMUM	TYPICAL	MAXIMUM	UNITS
BV_{DSS}	$I_D = 200\ \mu\text{A}$		65			V
I_{DSS}	$V_{DS} = 28\ \text{V}$	$V_{GS} = 0\ \text{V}$			75	μA
I_{GSS}	$V_{DS} = 0\ \text{V}$	$V_{GS} = 5.0\ \text{V}$			1.3	μA
$V_{GS(th)}$	$I_D = 400\ \mu\text{A}$	$V_{DS} = 10\ \text{V}$			4.8	V
$V_{DS(on)}$	$I_D = 1.0\ \text{A}$	$V_{GS} = 10\ \text{V}$		0.25		V
g_{fs}	$I_D = 1.0\ \text{A}$	$V_{DS} = 10\ \text{V}$		3.0		S
C_{iss} C_{oss} C_{rss}	$V_{DS} = 28\ \text{V}$	$V_{GS} = 0\ \text{V}$		73 23 1.2		pF
G_L	$V_{DS} = 28\ \text{V}$ $f = 895\ \text{MHz}$	$I_{DQ} = 450\ \text{mA}$ $P_{out} = 6\ \text{W}$	19	20		dB
P1dB	$V_{DS} = 28\ \text{V}$ $I_{DQ} = 450\ \text{mA}$	1 dB compression $f = 895\ \text{MHz}$	45	60		W
IMD	$V_{DS} = 28\ \text{V}$ $f = 895\ \text{MHz}$	$I_{DQ} = 450\ \text{mA}$ $P_{OUT} = 45\ \text{W}$		31		dBc
IRL				10		dB