

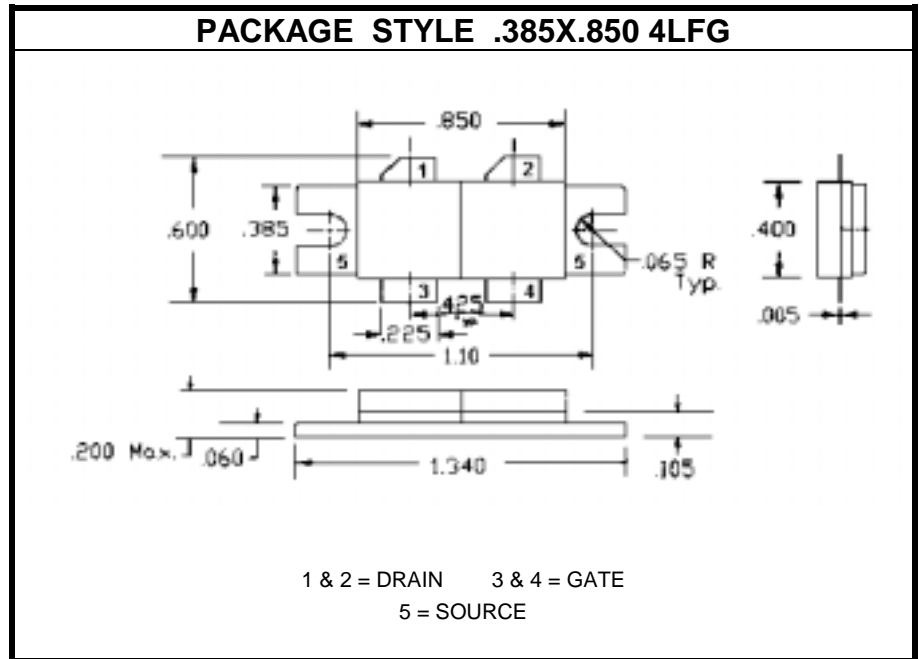
# RF FIELD-EFFECT POWER TRANSISTOR

**DESCRIPTION:**

The **ASI MRF151G** is a Dual Common Source N-Channel Enhancement-Mode MOSFET RF Power Transistor, Designed for 175 MHz, 300 W Transmitter and Amplifier Applications.

**MAXIMUM RATINGS**

$I_D$	40 A
$V_{DSS}$	125 V
$V_{GS}$	$\pm 40$ V
$P_{DISS}$	500 W @ $T_C = 25^\circ\text{C}$
$T_J$	$-65^\circ\text{C}$ to $+200^\circ\text{C}$
$T_{STG}$	$-65^\circ\text{C}$ to $+150^\circ\text{C}$
$\theta_{JC}$	$0.35^\circ\text{C/W}$


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

SYMBOL	TEST CONDITIONS	MINIMUM	TYPICAL	MAXIMUM	UNITS
$BV_{DSS}$	$I_D = 100$ mA	125			V
$I_{DSS}$	$V_{DS} = 50$ V $V_{GS} = 0$ V			5.0	mA
$I_{GSS}$	$V_{DS} = 0$ V $V_{GS} = 20$ V			1.0	$\mu\text{A}$
$V_{GS(th)}$	$I_D = 100$ mA $V_{DS} = 10$ V	1.0		5.0	V
$V_{DS(on)}$	$I_D = 10$ A $V_{GS} = 10$ V			5	V
$g_{fs}$	$I_D = 5.0$ A $V_{DS} = 10$ V	5.0			mhos
$C_{iss}$ $C_{oss}$ $C_{rss}$	$V_{DS} = 50$ V $V_{GS} = 0$ V $f = 1.0$ MHz		350 250 15		pF
$G_{ps}$ $\eta$	$V_{DD} = 50$ V $I_{DQ} = 500$ mA $P_{out} = 300$ W $f = 175$ MHz	14 50	16 55		dB %
$\psi$	$V_{SWR} = 5:1$ AT ALL PHASE ANGLES	NO DEGRADATION IN OUTPUT POWER			