

# RF POWER FIELD-EFFECT TRANSISTOR

**DESCRIPTION:**

The **ASI MRF175GV** is a N-Channel Enhancement-Mode Push Pull MOSFET, Designed for FM, and TV Solid State Transmitter Applications up to 500 MHz.

**MAXIMUM RATINGS**

<b>I<sub>D</sub></b>	26 A
<b>V<sub>DSS</sub></b>	65 V
<b>P<sub>DISS</sub></b>	400 W @ T <sub>C</sub> = 25 °C
<b>T<sub>J</sub></b>	-65 °C to +200 °C
<b>T<sub>STG</sub></b>	-65 °C to +150 °C
<b>θ<sub>JC</sub></b>	0.44 °C/W

**PACKAGE STYLE**

	MINIMUM INCHES/MM	MAXIMUM INCHES/MM
A	.850/21.59	.870/22.10
B	.395/10.03	.407/10.34
C		.125/3.18
D		.1925/4.889
E	.580/14.73	.620/15.75
F		.660/16.76
G	1.090/27.69	1.105/28.07
H	1.335/33.91	1.345/34.16
I	.003/0.08	.007/0.18
J	.060/1.52	.070/1.78
K	.082/2.08	.097/2.46
L		.205/5.21

1 = DRAIN    2 = DRAIN(2)    3 = GATE(1)  
4 = GATE(2)    5 = SOURCE (1&2) -CASE

**CHARACTERISTICS** T<sub>C</sub> = 25 °C

SYMBOL	TEST CONDITIONS			MINIMUM	TYPICAL	MAXIMUM	UNITS
<b>V<sub>(BR)DSS</sub></b>	I <sub>D</sub> = 50 mA	V <sub>GS</sub> = 0 V		65			<b>V</b>
<b>I<sub>DSS</sub></b>	V <sub>DS</sub> = 28 V	V <sub>GS</sub> = 0 V				2.5	<b>mA</b>
<b>I<sub>GSS</sub></b>	V <sub>DS</sub> = 0 V	V <sub>GS</sub> = 20 V				1.0	<b>µA</b>
<b>V<sub>GS(th)</sub></b>	I <sub>D</sub> = 100 mA	V <sub>DS</sub> = 10 V		1.0	3.0	6.0	<b>V</b>
<b>V<sub>DS(on)</sub></b>	I <sub>D</sub> = 5.0 A	V <sub>GS</sub> = 10 V				1.5	<b>V</b>
<b>g<sub>fs</sub></b>	I <sub>D</sub> = 2.5 A	V <sub>DS</sub> = 10 V		2.0	3.0		<b>mhos</b>
<b>C<sub>iss</sub></b>	V <sub>DS</sub> = 28 V	V <sub>GS</sub> = 0 V	f = 1.0 MHz		180		<b>pF</b>
<b>C<sub>oss</sub></b>					200		
<b>C<sub>rss</sub></b>					20		
<b>G<sub>ps</sub></b>	V <sub>DD</sub> = 28 V	I <sub>DQ</sub> = 2 X 100 mA	P <sub>OUT</sub> = 200 W f = 225 MHz	12	14		<b>dB</b>
<b>η</b>				55	65		<b>%</b>
<b>ψ</b>				10:1	---		<b>---</b>