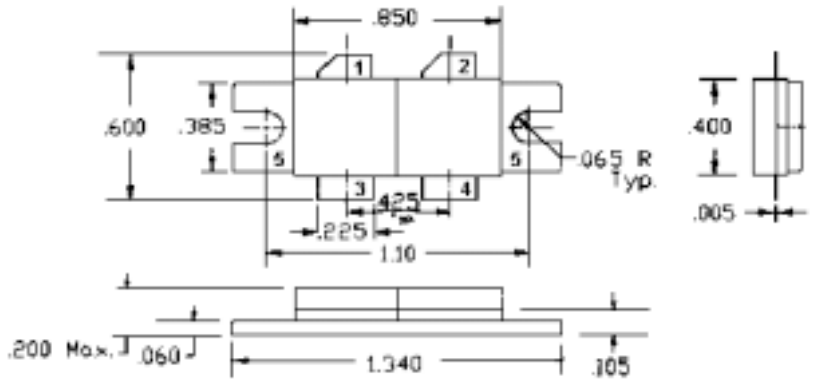
RF FIELD-EFFECT POWER TRANSISTOR

DESCRIPTION:

The **ASI MRF141G** is a Dual Common Source N-Channel Enhancement-Mode MOSFET RF Power Transistor, Designed for 175 MHz, 300 W Transmitter and Amplifier Applications.

PACKAGE STYLE .385X.850 4LFG



1 & 2 = DRAIN 3 & 4 = GATE
5 = SOURCE

MAXIMUM RATINGS

I_D	32 A
V_{DSS}	65 V
V_{GS}	±40 V
P_{DISS}	500 W @ T_C = 25 °C
T_J	-65 °C to +200 °C
T_{STG}	-65 °C to +200 °C
θ_{JC}	0.35 °C/W

CHARACTERISTICS / EACH SIDE T_C = 25 °C

SYMBOL	TEST CONDITIONS	MINIMUM	TYPICAL	MAXIMUM	UNITS
BV_{DSS}	I_D = 100 mA	65			V
I_{DSS}	V_{DS} = 28 V V_{GS} = 0 V			5.0	mA
I_{GSS}	V_{DS} = 0 V V_{GS} = 20 V			1.0	µA
$V_{GS(th)}$	I_D = 100 mA V_{DS} = 10 V	1.0		5.0	V
$V_{DS(on)}$	I_D = 10 A V_{GS} = 10 V			1.5	V
g_{fs}	I_D = 5.0 A V_{DS} = 10 V	5.0			mhos
C_{iss} C_{oss} C_{rss}	V_{DS} = 28 V V_{GS} = 0 V f = 1.0 MHz		350 420 40		pF
G_{ps} push-pull	V_{DD} = 28 V I_{DQ} = 500 mA P_{out} = 300 W f = 175 MHz	12			dB
η push-pull	V_{DD} = 28 V $I_{D(max)}$ = 21.4 A P_{out} = 300 W f = 175 MHz	45			%
ψ push-pull	V_{DD} = 28 V I_{DQ} = 500 mA P_{out} = 300 W f = 175 MHz V_{SWR} = 5:1 AT ALL PHASE ANGLES	NO DEGRADATION IN OUTPUT POWER			