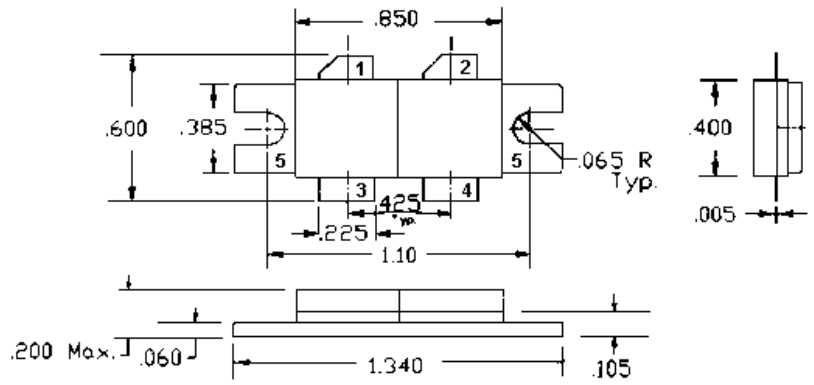
RF FIELD-EFFECT POWER TRANSISTOR

DESCRIPTION:

The **ASI SD2942** is a Dual Common Source N-Channel Enhancement-Mode MOSFET
RF Power Transistor, Designed for 175 MHz, 350 W Transmitter and Amplifier Applications.

PACKAGE STYLE .385X.850 4LFG



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

MAXIMUM RATINGS

I_D	40 A
V_{DSS}	130 V
V_{GS}	±20 V
P_{DISS}	500 W @ T_C = 25 °C
T_J	-65 °C to +200 °C
T_{STG}	-65 °C to +150 °C
θ_{JC}	0.35 °C/W

CHARACTERISTICS T_C = 25 °C

SYMBOL	TEST CONDITIONS	MINIMUM	TYPICAL	MAXIMUM	UNITS
BV_{DSS}	I_D = 100 mA	130			V
I_{DSS}	V_{DS} = 50 V V_{GS} = 0 V			100	µA
I_{GSS}	V_{DS} = 0 V V_{GS} = 20 V			250	nA
$V_{GS(Q)}$	I_D = 250 mA V_{DS} = 10 V	1.5		4.0	V
$V_{DS(on)}$	I_D = 10 A V_{GS} = 10 V			3.0	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		415 236 17		pF
G_{ps} η	V_{DD} = 50 V I_{DQ} = 500 mA P_{out} = 350 W f = 175 MHz	15 55	17 61		dB %
ψ	V_{SWR} = 5:1 AT ALL PHASE ANGLES	NO DEGRADATION IN OUTPUT POWER			

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SD2942