CCSPG1060N

## N-CH GALLIUM NITRIDE FIELD EFFECT TRANSISTOR

Central Semiconductor

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CCSPG1060N is an N-channel gallium nitride field effect transistor used in many power modules and devices as well as for RF power circuit designs.

MARKING: CSP 1060
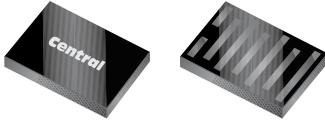
Top View   Bottom View

CSP3.5X2 CASE

MAXIMUM RATINGS: (T_A=25°C)

	SYMBOL		UNITS
Drain-Source Voltage	V_{DS}	100	V
Gate-Source Voltage	V_{GS}	-4.0 to +6.0	V
Continuous Drain Current	I_D	60	A
Pulsed Drain Current (tp=300µs)	I_{DM}	230	A
Operating and Storage Junction Temperature	T_J, T_{stg}	-40 to +150	°C

ELECTRICAL CHARACTERISTICS: (T_A=25°C unless otherwise noted)

SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I_{GSSF}	V_{GS}=5.0V, V_{DS}=0		20	5000	µA
I_{GSSR}	V_{GS}=-4.0V, V_{DS}=0		60	400	µA
I_{DSS}	V_{DS}=80V, V_{GS}=0			350	µA
BV_{DSS}	V_{GS}=0, I_D=400µA	100			V
$V_{GS(th)}$	V_{GS}= V_{DS}, I_D=9.0mA	0.8	1.1	2.5	V
$r_{DS(ON)}$	V_{GS}=5.0V, I_D=25A		2.4	3.2	mΩ
V_{FSD}	V_{GS}=0, I_S=0.5A		1.5		V
C_{iss}	V_{DS}=50V, V_{GS}=0, f=1MHz		1000		pF
C_{oss}	V_{DS}=50V, V_{GS}=0, f=1MHz		460		pF
C_{rss}	V_{DS}=50V, V_{GS}=0, f=1MHz		8.2		pF
$C_{oss(er)}$	V_{DS}=0 to 50V, V_{GS}=0		700		pF
$C_{oss(tr)}$	V_{DS}=0 to 50V, V_{GS}=0		1020		pF
Q_g	V_{DS}=50V, V_{GS}=0 to 5V, I_D=25A		1.9		nC
Q_{gd}	V_{DS}=50V, V_{GS}=0 to 5V, I_D=25A		1.7		nC
Q_{gs}	V_{DS}=50V, V_{GS}=0 to 5V, I_D=25A		1.1		nC

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FIELD EFFECT TRANSISTOR

CSP3.5X2 CASE - MECHANICAL OUTLINE

CSP3.5X2 (REV: R0)
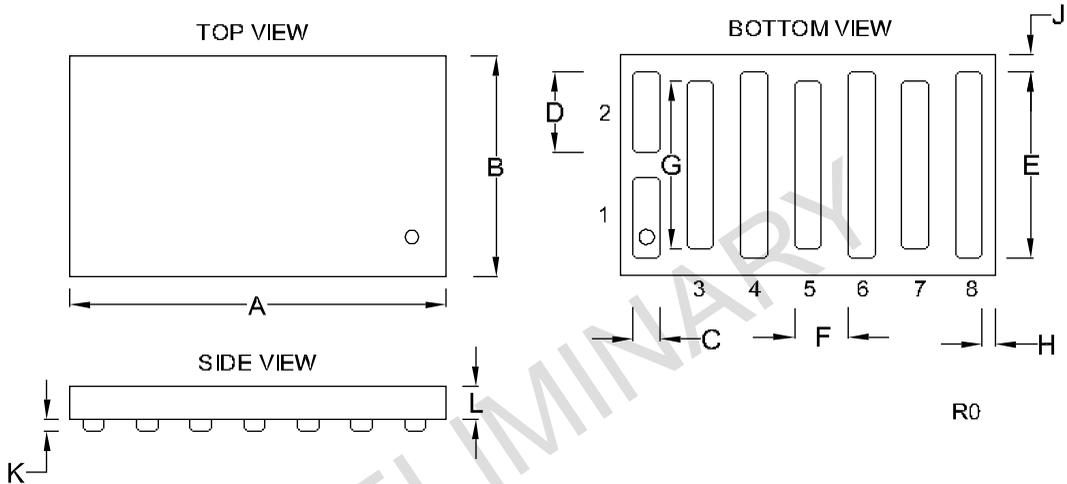
DIMENSIONS				
	INCHES		MILLIMETERS	
SYMBOL	MIN	MAX	MIN	MAX
A	0.137	0.139	3.47	3.53
B	0.083	0.085	2.10	2.16
C	0.009	0.011	0.23	0.27
D	0.030	0.031	0.75	0.80
E	0.070	0.072	1.78	1.82
F	0.020		0.50	
G	0.063	0.065	1.60	1.65
H	0.005		0.125	
J	0.006		0.165	
K	0.004	0.006	0.10	0.14
L	0.011	0.013	0.29	0.33

LEAD CODE:

1) Gate
2) Source
3) Drain
4) Source
5) Drain
6) Source
7) Drain
8) Source

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