

Excellent Integrated System Limited

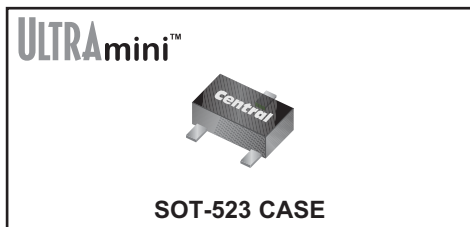
Stocking Distributor

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[Central Semiconductor Corp](#)
[CMUDM7004 TR](#)

For any questions, you can email us directly:
sales@integrated-circuit.com

CMUDM7004
SURFACE MOUNT
N-CHANNEL
ENHANCEMENT-MODE
SILICON MOSFET



www.centrasemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CMUDM7004 is an Enhancement-mode N-Channel MOSFET, manufactured by the N-Channel DMOS Process, designed for high speed pulsed amplifier and driver applications. This MOSFET offers Low $r_{DS(on)}$ and Low Theshold Voltage.

MARKING CODE: 74C

FEATURES:

- ESD Protection up to 2kV
- Low $r_{DS(on)}$
- Low Threshold Voltage
- Logic Level Compatible
- Small, SOT-523 Surface Mount Package
- Complimentary P-Channel MOSFET: CMUDM8004

APPLICATIONS:

- Load/Power Switches
- Power Supply Converter Circuits
- Battery Powered Portable Devices

MAXIMUM RATING: ($T_A=25^{\circ}C$)

Drain-Source Voltage	
Gate-Source Voltage	
Continuous Drain Current	
Power Dissipation	
Operating and Storage Junction Temperature	

SYMBOL

V_{DS}	30
V_{GS}	8.0
I_D	450
P_D	250
T_J, T_{stg}	-65 to +150

UNITS

V
V
mA
mW
$^{\circ}C$

ELECTRICAL CHARACTERISTICS: ($T_A=25^{\circ}C$ unless otherwise noted)

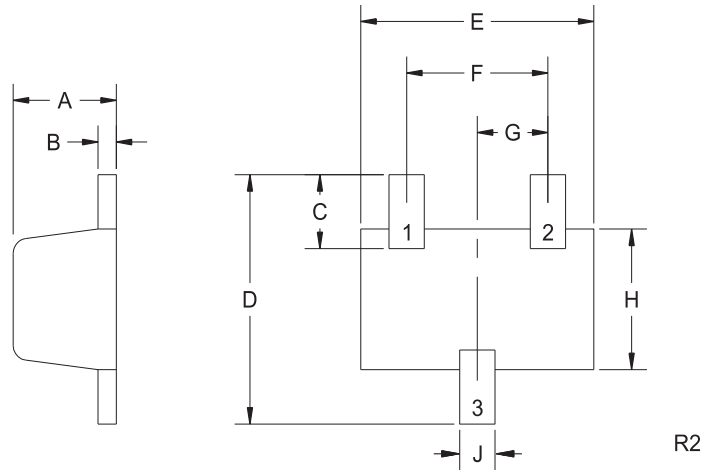
SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I_{GSS}, I_{GSSR}	$V_{GS}=8.0V, V_{DS}=0$			3.0	μA
I_{DSS}	$V_{DS}=30V, V_{GS}=0$			1.0	μA
BV_{DSS}	$V_{GS}=0, I_D=10\mu A$	30			V
$V_{GS(th)}$	$V_{DS}=V_{GS}, I_D=250\mu A$	0.5		1.0	V
V_{SD}	$V_{GS}=0, I_S=400mA$	0.5		1.1	V
$r_{DS(ON)}$	$V_{GS}=4.5V, I_D=200mA$		280	460	$m\Omega$
$r_{DS(ON)}$	$V_{GS}=2.5V, I_D=100mA$		390	560	$m\Omega$
$r_{DS(ON)}$	$V_{GS}=1.8V, I_D=75mA$		550	730	$m\Omega$
$Q_{g(tot)}$	$V_{DS}=15V, V_{GS}=4.5V, I_D=1.0A$		0.792		nC
Q_{gs}	$V_{DS}=15V, V_{GS}=4.5V, I_D=1.0A$		0.15		nC
Q_{gd}	$V_{DS}=15V, V_{GS}=4.5V, I_D=1.0A$		0.23		nC
g_{FS}	$V_{DS}=10V, I_D=100mA$	200			mS
C_{rss}	$V_{DS}=25V, V_{GS}=0, f=1.0MHz$		5.0	10	pF
C_{iss}	$V_{DS}=25V, V_{GS}=0, f=1.0MHz$		43	45	pF
C_{oss}	$V_{DS}=25V, V_{GS}=0, f=1.0MHz$		8.0	15	pF
t_{on}	$V_{DS}=5.0V, V_{GS}=4.0V, I_D=75mA, R_G=10\Omega$		20		ns
t_{off}	$V_{DS}=5.0V, V_{GS}=4.0V, I_D=75mA, R_G=10\Omega$		75		ns

R2 (2-August 2011)

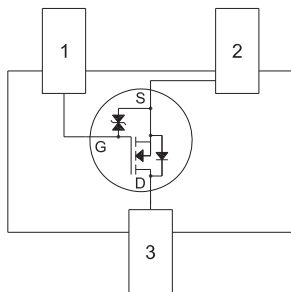
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SOT-523 CASE - MECHANICAL OUTLINE



PIN CONFIGURATION
(Bottom View)



SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.023	0.031	0.58	0.78
B	0.002	0.008	0.04	0.20
C	0.013	0.021	0.34	0.54
D	0.059	0.067	1.50	1.70
E	0.059	0.067	1.50	1.70
F	0.035	0.043	0.90	1.10
G	0.020		0.50	
H	0.031	0.039	0.78	0.98
J	0.010	0.014	0.25	0.35

SOT-523 (REV: R2)

LEAD CODE:

- 1) Gate
- 2) Source
- 3) Drain

MARKING CODE: 74C

R2 (2-August 2011)

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PRODUCT SUPPORT

Central's operations team provides the highest level of support to insure product is delivered on-time.

- Supply management (Customer portals)
- Inventory bonding
- Consolidated shipping options
- Custom bar coding for shipments
- Custom product packing

DESIGNER SUPPORT/SERVICES

Central's applications engineering team is ready to discuss your design challenges. Just ask.

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- SPICE models
- Custom electrical curves
- Environmental regulation compliance
- Customer specific screening
- Up-screening capabilities
- Special wafer diffusions
- PbSn plating options
- Package details
- Application notes
- Application and design sample kits
- Custom product and package development

CONTACT US

Corporate Headquarters & Customer Support Team

Central Semiconductor Corp.
145 Adams Avenue
Hauppauge, NY 11788 USA
Main Tel: (631) 435-1110
Main Fax: (631) 435-1824
Support Team Fax: (631) 435-3388
www.centrasemi.com

Worldwide Field Representatives:
www.centrasemi.com/wwreps

Worldwide Distributors:
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