CMXDM7002A

SURFACE MOUNT
DUAL N-CHANNEL
ENHANCEMENT-MODE
SILICON MOSFETS

SUPERmini™

SOT-26 CASE

Central Semiconductor Corp.

www.centralsemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CMXDM7002A is special dual version of the 2N7002 Enhancement-mode N-Channel Field Effect Transistor, manufactured by the N-Channel DMOS Process, and designed for high speed pulsed amplifier and driver applications. This special Dual Transistor device offers low $r_{DS(ON)}$ and low $V_{DS(ON)}$.

MARKING CODE: X02A

MAXIMUM RATINGS: (T_A=25°C)	**SYMBOL**		**UNITS**
Drain-Source Voltage	V_{DS}	60	V
Drain-Gate Voltage	V_{DG}	60	V
Gate-Source Voltage	V_{GS}	40	V
Continuous Drain Current	I_D	280	mA
Continuous Source Current (Body Diode)	I_S	280	mA
Maximum Pulsed Drain Current	I_{DM}	1.5	A
Maximum Pulsed Source Current	I_{SM}	1.5	A
Power Dissipation	P_D	350	mW
Operating and Storage Junction Temperature	T_J, T_{stg}	-65 to +150	°C
Thermal Resistance	Θ_{JA}	357	°C/W

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

SYMBOL	**TEST CONDITIONS**	**MIN**	**MAX**	**UNITS**
I_{GSSF}, I_{GSSR}	V_{GS}=20V, V_{DS}=0		100	nA
I_{DSS}	V_{DS}=60V, V_{GS}=0		1.0	μA
I_{DSS}	V_{DS}=60V, V_{GS}=0, T_J=125°C		500	μA
$I_{D(ON)}$	V_{GS}=10V, V_{DS}=10V	500		mA
BV_{DSS}	V_{GS}=0, I_D=10μA	60		V
$V_{GS(th)}$	V_{DS}=V_{GS}, I_D=250μA	1.0	2.5	V
$V_{DS(ON)}$	V_{GS}=10V, I_D=500mA		1.0	V
$V_{DS(ON)}$	V_{GS}=5.0V, I_D=50mA		0.15	V
V_{SD}	V_{GS}=0, I_S=400mA		1.2	V
$r_{DS(ON)}$	V_{GS}=10V, I_D=500mA		2.0	Ω
$r_{DS(ON)}$	V_{GS}=10V, I_D=500mA, T_J=125°C		3.5	Ω
$r_{DS(ON)}$	V_{GS}=5.0V, I_D=50mA		3.0	Ω
$r_{DS(ON)}$	V_{GS}=5.0V, I_D=50mA, T_J=125°C		5.0	Ω
g_{FS}	V_{DS}=10V, I_D=200mA	80		mS
C_{rss}	V_{DS}=25V, V_{GS}=0, f=1.0MHz		5.0	pF
C_{iss}	V_{DS}=25V, V_{GS}=0, f=1.0MHz		50	pF
C_{oss}	V_{DS}=25V, V_{GS}=0, f=1.0MHz		25	pF
t_{on}, t_{off}	V_{DD}=30V, V_{GS}=10V, I_D=200mA, R_G=25Ω, R_L=150Ω		20	ns

R2 (12-February 2010)

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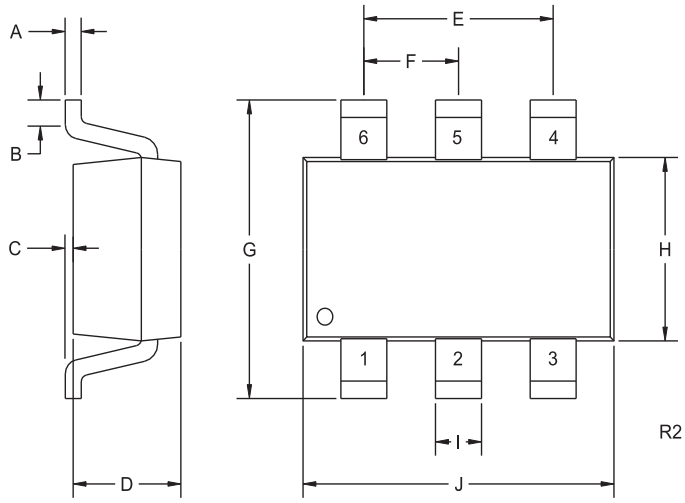
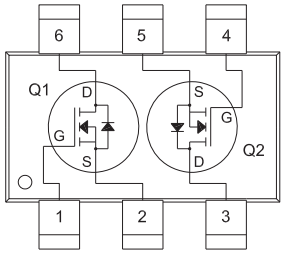
SOT-26 CASE - MECHANICAL OUTLINE



PIN CONFIGURATION



DIMENSIONS				
	INCHES		MILLIMETERS	
SYMBOL	MIN	MAX	MIN	MAX
A	0.004	0.007	0.11	0.19
B	0.016	-	0.40	-
C	-	0.004	-	0.10
D	0.039	0.047	1.00	1.20
E	0.074	0.075	1.88	1.92
F	0.037	0.038	0.93	0.97
G	0.102	0.118	2.60	3.00
H	0.059	0.067	1.50	1.70
I	0.016		0.41	
J	0.110	0.118	2.80	3.00

SOT-26 (REV: R2)

LEAD CODE:
1) Gate Q1
2) Source Q1
3) Drain Q2
4) Gate Q2
5) Source Q2
6) Drain Q1

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