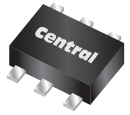
CMLDM8002A
CMLDM8002AG*
CMLDM8002AJ

SURFACE MOUNT SILICON DUAL P-CHANNEL ENHANCEMENT-MODE MOSFETS



SOT-563 CASE

* Device is ***Halogen Free*** by design

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DESCRIPTION:

These CENTRAL SEMICONDUCTOR devices are dual chip P-Channel enhancement-mode MOSFETs, manufactured by the P-Channel DMOS Process, designed for high speed pulsed amplifier and driver applications. The CMLDM8002A utilizes the USA pinout configuration, while the CMLDM8002AJ, utilizing the Japanese pinout configuration, is available as a special order. These special dual dransistor devices offer low $r_{DS(on)}$ and low $V_{DS(on)}$.

MARKING CODES:

CMLDM8002A:	**C08**
CMLDM8002AG*:	**CG8**
CMLDM8002AJ:	**CJ8**

APPLICATIONS:

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

FEATURES:

- Dual Chip Device
- Low $r_{DS(on)}$
- Low $V_{DS(on)}$
- Low Threshold Voltage
- Fast Switching
- Logic Level Compatible
- Small SOT-563 package

MAXIMUM RATINGS: (T_A=25°C)	**SYMBOL**		**UNITS**
Drain-Source Voltage	V_{DS}	50	V
Drain-Gate Voltage	V_{DG}	50	V
Gate-Source Voltage	V_{GS}	20	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 (Note 1)	P_D	350	mW
Power Dissipation (Note 2)	P_D	300	mW
Power Dissipation (Note 3)	P_D	150	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}=50V, V_{GS}=0		1.0	μA
I_{DSS}	V_{DS}=50V, 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	50		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		1.5	V
$V_{DS(ON)}$	V_{GS}=5.0V, I_D=50mA		0.15	V
V_{SD}	V_{GS}=0, I_S=115mA		1.3	V

Notes: (1) Ceramic or aluminum core PC Board with copper mounting pad area of 4.0mm^2
(2) FR-4 Epoxy PC Board with copper mounting pad area of 4.0mm2
(3) FR-4 Epoxy PC Board with copper mounting pad area of 1.4mm^2

R7 (8-June 2015)

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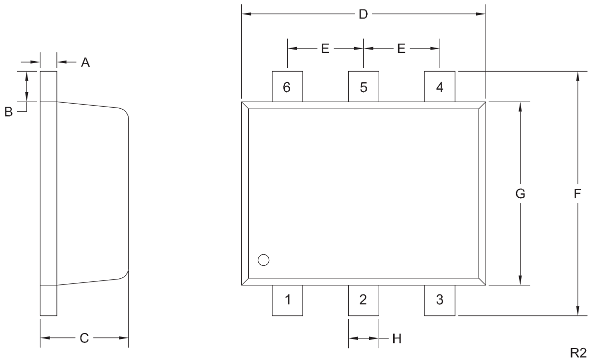
ELECTRICAL CHARACTERISTICS PER TRANSISTOR - Continued: (T_A=25°C unless otherwise noted)

SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
$r_{DS(ON)}$	V_{GS}=10V, I_D=500mA			2.5	Ω
$r_{DS(ON)}$	V_{GS}=10V, I_D=500mA, T_J=125°C			4.0	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	200			mS
C_{rss}	V_{DS}=25V, V_{GS}=0, f=1.0MHz			7.0	pF
C_{iss}	V_{DS}=25V, V_{GS}=0, f=1.0MHz			70	pF
C_{oss}	V_{DS}=25V, V_{GS}=0, f=1.0MHz			15	pF
$Q_{g(tot)}$	V_{DS}=25V, V_{GS}=4.5V, I_D=100mA		0.72		nC
Q_{gs}	V_{DS}=25V, V_{GS}=4.5V, I_D=100mA		0.25		nC
Q_{gd}	V_{DS}=25V, V_{GS}=4.5V, I_D=100mA		0.16		nC
t_{on}, t_{off}	V_{DD}=30V, V_{GS}=10V, I_D=200mA R_G=25Ω, R_L=150Ω			20	ns

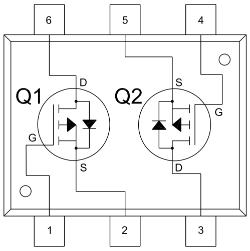
SOT-563 CASE - MECHANICAL OUTLINE



DIMENSIONS				
	INCHES		MILLIMETERS	
SYMBOL	MIN	MAX	MIN	MAX
A	0.0027	0.007	0.07	0.18
B	0.008		0.20	
C	0.017	0.024	0.45	0.60
D	0.059	0.067	1.50	1.70
E	0.020		0.50	
F	0.059	0.067	1.50	1.70
G	0.043	0.051	1.10	1.30
H	0.006	0.012	0.15	0.30

SOT-563 (REV: R2)

CMLDM8002A (USA Pinout)
CMLDM8002AG*



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

MARKING CODES:
CMLDM8002A: C08
CMLDM8002AG*: CG8

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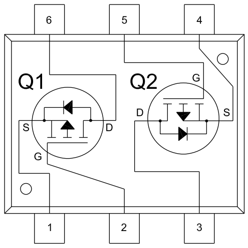
CMLDM8002AJ (Japanese Pinout)



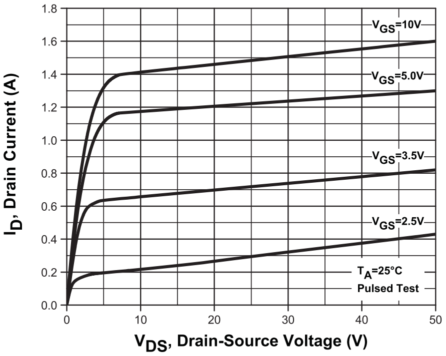
LEAD CODE:
1) Source Q1
2) Gate Q1
3) Drain Q2
4) Source Q2
5) Gate Q2
6) Drain Q1

MARKING CODE: CJ8

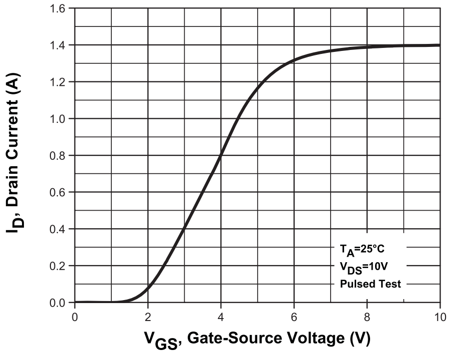
R7 (8-June 2015)

TYPICAL ELECTRICAL CHARACTERISTICS

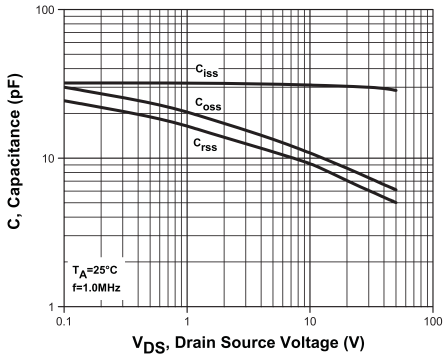
Output Characteristics



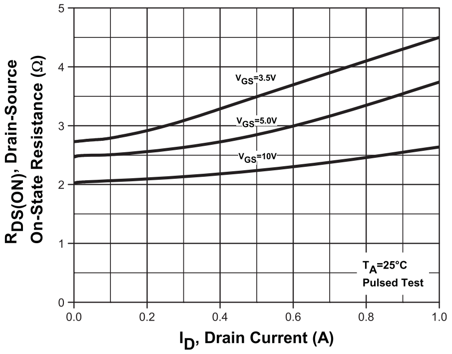
Transfer Characteristics



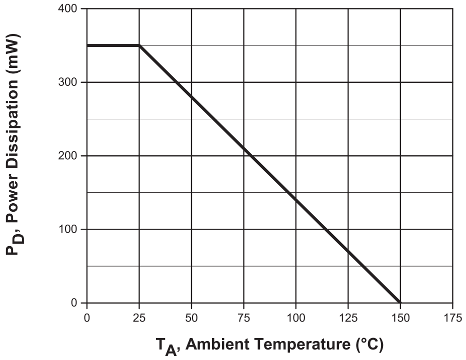
Capacitance



Drain Source On Resistance



Power Derating



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R7 (8-June 2015)

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- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.

Как с нами связаться

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