CMKDM8005

SURFACE MOUNT
DUAL P-CHANNEL
ENHANCEMENT-MODE
SILICON MOSFETS

ULTRAmini™

SOT-363 CASE

Central Semiconductor Corp.

www.centralsemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CMKDM8005 consists of Dual P-Channel Enhancement-mode silicon MOSFETs designed for high speed pulsed amplifier and driver applications. These MOSFETs offer Very Low $r_{DS(ON)}$ and Low Threshold Voltage.

MARKING CODE: C85M

APPLICATIONS:

- Load Switch / Level Shifting
- Battery Charging
- Boost Switch
- Electro-luminescent Backlighting

FEATURES:

- ESD Protection up to 2kV
- 350mW Power Dissipation
- Very Low $r_{DS(ON)}$
- Low Threshold Voltage
- Logic Level Compatible
- Small, SOT-363 Surface Mount Package

MAXIMUM RATINGS: (T_A=25°C)	**SYMBOL**		**UNITS**
Drain-Source Voltage	V_{DS}	20	V
Gate-Source Voltage	V_{GS}	8.0	V
Continuous Drain Current (Steady State)	I_D	650	mA
Continuous Source Current (Body Diode)	I_S	250	mA
Maximum Pulsed Drain Current	I_{DM}	1.0	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**	**TYP**	**MAX**	**UNITS**
I_{GSSF}, I_{GSSR}	V_{GS}=4.5V, V_{DS}=0			10	μA
I_{DSS}	V_{DS}=16V, V_{GS}=0			100	nA
BV_{DSS}	V_{GS}=0, I_D=250μA	20			V
$V_{GS(th)}$	V_{DS}=V_{GS}, I_D=250μA	0.5		1.0	V
V_{SD}	V_{GS}=0, I_S=250mA			1.1	V
$r_{DS(ON)}$	V_{GS}=4.5V, I_D=350mA		0.25	0.36	Ω
$r_{DS(ON)}$	V_{GS}=2.5V, I_D=300mA		0.37	0.5	Ω
$r_{DS(ON)}$	V_{GS}=1.8V, I_D=150mA			0.8	Ω
$Q_{g(tot)}$	V_{DS}=10V, V_{GS}=4.5V, I_D=200mA		1.2		nC
Q_{gs}	V_{DS}=10V, V_{GS}=4.5V, I_D=200mA		0.24		nC
Q_{gd}	V_{DS}=10V, V_{GS}=4.5V, I_D=200mA		0.36		nC
g_{FS}	V_{DS}=10V, I_D=200mA	0.2			S

R2 (27-September 2011)

CMKDM8005

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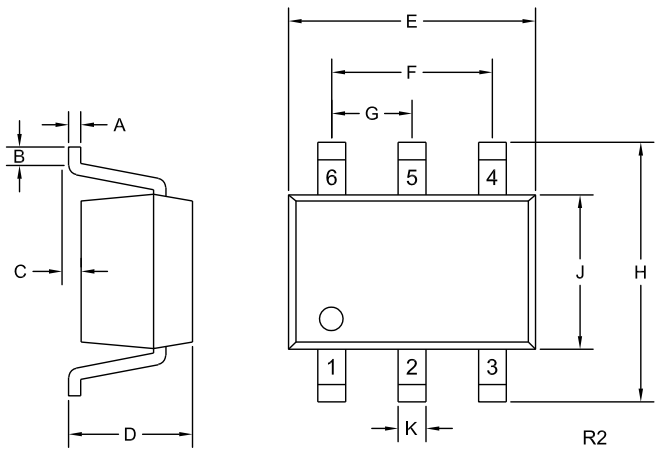
ELECTRICAL CHARACTERISTICS PER TRANSISTOR - Continued: (T_A=25°C unless otherwise noted)

SYMBOL	TEST CONDITIONS	TYP	MAX	UNITS
C_{rss}	V_{DS}=16V, V_{GS}=0, f=1.0MHz	25		pF
C_{iss}	V_{DS}=16V, V_{GS}=0, f=1.0MHz	100		pF
C_{oss}	V_{DS}=16V, V_{GS}=0, f=1.0MHz	21		pF
t_{on}	V_{DD}=10V, V_{GS}=4.5V, I_D=200mA, R_G=10Ω	38		ns
t_{off}	V_{DD}=10V, V_{GS}=4.5V, I_D=200mA, R_G=10Ω	48		ns

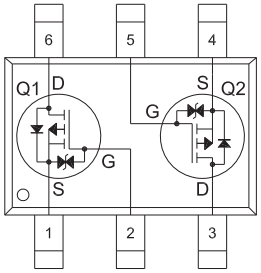
SOT-363 CASE - MECHANICAL OUTLINE



DIMENSIONS				
	INCHES		MILLIMETERS	
SYMBOL	MIN	MAX	MIN	MAX
A	0.004	0.010	0.10	0.25
B	0.005	-	0.12	-
C	0.000	0.004	0.00	0.10
D	0.031	0.043	0.80	1.10
E	0.071	0.087	1.80	2.20
F	0.051		1.30	
G	0.026		0.65	
H	0.075	0.091	1.90	2.30
J	0.043	0.055	1.10	1.40
K	0.006	0.012	0.15	0.30

SOT-363 (REV: R2)

PIN CONFIGURATION



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

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