

CMRDM3575

**SURFACE MOUNT
N-CHANNEL AND P-CHANNEL
ENHANCEMENT-MODE
COMPLEMENTARY SILICON MOSFETS**

ATTOmini™



SOT-963 CASE

• Device is **Halogen Free** by design

APPLICATIONS:

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

MAXIMUM RATINGS: (T_A=25°C)

Drain-Source Voltage
Gate-Source Voltage
Continuous Drain Current (Steady State)
Continuous Drain Current, t_p≤5.0s
Power Dissipation
Operating and Storage Junction Temperature
Thermal Resistance



www.centrasemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CMRDM3575 consists of complementary N-Channel and P-Channel Enhancement-mode silicon MOSFETs designed for high speed pulsed amplifier and driver applications. These MOSFETs offer Low r_{DS(ON)} and Low Threshold Voltage.

MARKING CODE: CT

FEATURES:

- Power Dissipation: 125mW
- Low Package Profile: 0.5mm (MAX)
- Low r_{DS(ON)}
- Low Threshold Voltage
- Logic Level Compatible
- Small SOT-963 Surface Mount Package

SYMBOL	N-CH (Q1)	P-CH (Q2)	UNITS
V _{DS}	20		V
V _{GS}	8.0		V
I _D	160	140	mA
I _D	200	180	mA
P _D	125		mW
T _J , T _{stg}	-65 to +150		°C
θ _{JA}	1000		°C/W

ELECTRICAL CHARACTERISTICS: (T_A=25°C)

SYMBOL	TEST CONDITIONS	N-CH (Q1)			P-CH (Q2)			UNITS
		MIN	TYP	MAX	MIN	TYP	MAX	
I _{GSSF} , I _{GSSR}	V _{GS} =5.0V, V _{DS} =0	-	-	100	-	-	100	nA
I _{DSS}	V _{DS} =5.0V, V _{GS} =0	-	-	50	-	-	50	nA
I _{DSS}	V _{DS} =16V, V _{GS} =0	-	-	100	-	-	100	nA
BV _{DSS}	V _{GS} =0, I _D =250μA	20	-	-	20	-	-	V
V _{GS(th)}	V _{DS} =V _{GS} , I _D =250μA	0.4	-	1.0	0.4	-	1.0	V
r _{DS(ON)}	V _{GS} =4.5V, I _D =100mA	-	1.5	3.0	-	4.0	5.0	Ω
r _{DS(ON)}	V _{GS} =2.5V, I _D =50mA	-	2.0	4.0	-	5.5	7.0	Ω
r _{DS(ON)}	V _{GS} =1.8V, I _D =20mA	-	3.0	6.0	-	8.0	10	Ω
r _{DS(ON)}	V _{GS} =1.5V, I _D =10mA	-	4.0	10	-	11	17	Ω
r _{DS(ON)}	V _{GS} =1.2V, I _D =1.0mA	-	7.0	-	-	20	-	Ω
Q _{g(tot)}	V _{DS} =10V, V _{GS} =4.5V, I _D =100mA	-	0.458	-	-	0.536	-	nC
Q _{gs}	V _{DS} =10V, V _{GS} =4.5V, I _D =100mA	-	0.176	-	-	0.292	-	nC
Q _{gd}	V _{DS} =10V, V _{GS} =4.5V, I _D =100mA	-	0.138	-	-	0.236	-	nC
g _{FS}	V _{DS} =5.0V, I _D =125mA	-	1.3	-	-	1.3	-	S
C _{rss}	V _{DS} =15V, V _{GS} =0, f=1.0MHz	-	2.2	-	-	1.0	-	pF
C _{iss}	V _{DS} =15V, V _{GS} =0, f=1.0MHz	-	9.0	-	-	12	-	pF
C _{oss}	V _{DS} =15V, V _{GS} =0, f=1.0MHz	-	3.0	-	-	2.7	-	pF
t _{on}	V _{DD} =10V, V _{GS} =4.5V, I _D =200mA	-	40	-	-	60	-	ns
t _{off}	V _{DD} =10V, V _{GS} =4.5V, I _D =200mA	-	150	-	-	210	-	ns

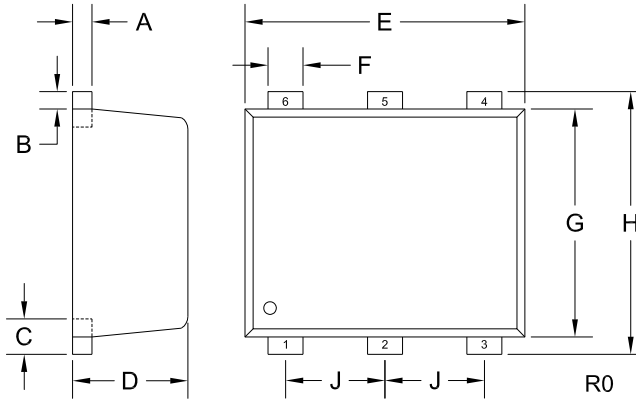
R2 (2-August 2011)

CMRDM3575

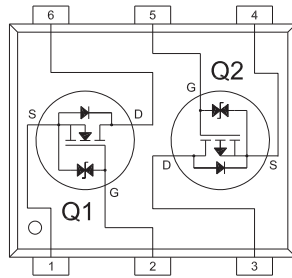
**SURFACE MOUNT
N-CHANNEL AND P-CHANNEL
ENHANCEMENT-MODE
COMPLEMENTARY SILICON MOSFETS**



SOT-963 CASE - MECHANICAL OUTLINE



PIN CONFIGURATION



LEAD CODE:

- 1) Source Q1
- 2) Gate Q1
- 3) Drain Q2
- 4) Source Q2
- 5) Gate Q2
- 6) Drain Q1

MARKING CODE: CT

SYMBOL	DIMENSIONS			
	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.002	0.006	0.050	0.150
B	0.002	0.006	0.050	0.150
C	0.005	0.007	0.125	0.175
D	0.016	0.020	0.400	0.500
E	0.037	0.041	0.950	1.050
F	0.004	0.008	0.100	0.200
G	0.030	0.033	0.750	0.850
H	0.037	0.041	0.950	1.050
J	0.014		0.350	

SOT-963 (REV: R0)

R2 (2-August 2011)