

CMRDM7590

SURFACE MOUNT
DUAL P-CHANNEL
ENHANCEMENT-MODE
SILICON MOSFETS



www.centrasemi.com

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

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CMRDM7590 is an Enhancement-mode Dual P-Channel Field Effect Transistor designed for high speed pulsed amplifier and driver applications. This MOSFET offers Low r_{DS(ON)} and Low Threshold Voltage.

MARKING CODE: CW

FEATURES:

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

SYMBOL		UNITS
V _{DS}	20	V
V _{GS}	8.0	V
I _D	140	mA
I _D	180	mA
P _D	125	mW
T _J , T _{stg}	-65 to +150	°C
θ _{JA}	1000	°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} =5.0V, V _{DS} =0			100	nA
I _{DSS}	V _{DS} =5.0V, V _{GS} =0			50	nA
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	0.4		1.0	V
r _{DS(ON)}	V _{GS} =4.5V, I _D =100mA		4.0	5.0	Ω
r _{DS(ON)}	V _{GS} =2.5V, I _D =50mA		5.5	7.0	Ω
r _{DS(ON)}	V _{GS} =1.8V, I _D =20mA		8.0	10	Ω
r _{DS(ON)}	V _{GS} =1.5V, I _D =10mA		11	17	Ω
r _{DS(ON)}	V _{GS} =1.2V, I _D =1.0mA		20		Ω
g _{FS}	V _{DS} =5.0V, I _D =125mA		1.3		S
C _{rss}	V _{DS} =15V, V _{GS} =0, f=1.0MHz		1.0		pF
C _{iss}	V _{DS} =15V, V _{GS} =0, f=1.0MHz		12		pF
C _{oss}	V _{DS} =15V, V _{GS} =0, f=1.0MHz		2.7		pF
t _{on}	V _{DD} =10V, V _{GS} =4.5V, I _D =200mA		60		ns
t _{off}	V _{DD} =10V, V _{GS} =4.5V, I _D =200mA		210		ns

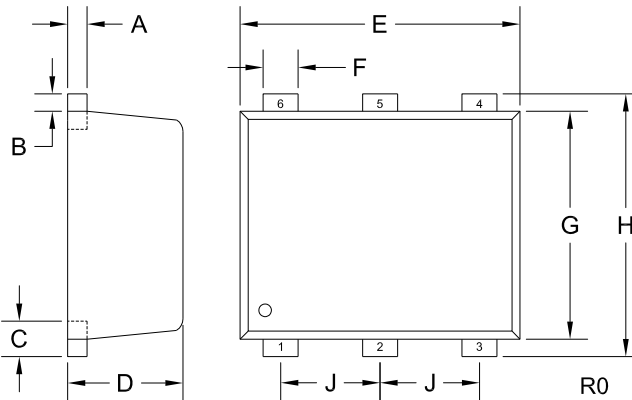
R1 (8-February 2010)

CMRDM7590

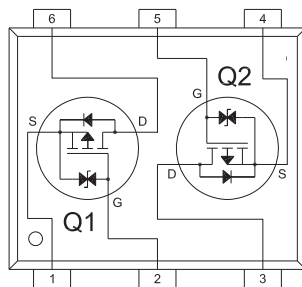
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SOT-963 CASE - MECHANICAL OUTLINE



PIN CONFIGURATION



LEAD CODE:

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

MARKING CODE: CW

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)

R1 (8-February 2010)