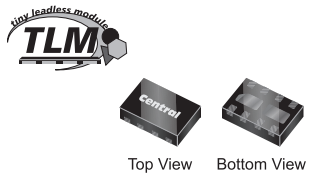
CTLDM304P-M832DS

SURFACE MOUNT
DUAL P-CHANNEL
ENHANCEMENT-MODE
SILICON MOSFET



Top View Bottom View

TLM832DS CASE

Central Semiconductor Corp.

www.centralsemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CTLDM304P-M832DS is a dual enhancement-mode P-Channel silicon MOSFET designed for high speed pulsed amplifier and driver applications. This energy efficient MOSFET offers beneficially low $r_{DS(ON)}$, low gate charge, and low threshold voltage.

MARKING CODE: C430

APPLICATIONS:

- Switching circuits
- DC-DC converters
- Power management

FEATURES:

- Low $r_{DS(ON)}$
- High drain current
- Low gate charge

MAXIMUM RATINGS: (T_A=25°C)	**SYMBOL**		**UNITS**
Drain-Source Voltage	V_{DS}	30	V
Gate-Source Voltage	V_{GS}	12	V
Continuous Drain Current (Steady State)	I_D	4.2	A
Maximum Pulsed Drain Current, tp=10μs	I_{DM}	30	A
Power Dissipation	P_D	1.65	W
Operating and Storage Junction Temperature	T_J, T_{stg}	-55 to +150	°C
Thermal Resistance	Θ_{JA}	76	°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}=12V, V_{DS}=0			100	nA
I_{DSS}	V_{DS}=24V, V_{GS}=0			1.0	μA
BV_{DSS}	V_{GS}=0, I_D=250μA	30			V
$V_{GS(th)}$	V_{GS}=V_{DS}, I_D=250μA	0.7	1.0	1.3	V
$r_{DS(ON)}$	V_{GS}=10V, I_D=4.2A		60	70	mΩ
$r_{DS(ON)}$	V_{GS}=4.5V, I_D=4.0A		64	75	mΩ
$r_{DS(ON)}$	V_{GS}=2.5V, I_D=1.0A		86	120	mΩ
$Q_{g(tot)}$	V_{DS}=15V, V_{GS}=4.5V, I_D=4.0A		6.4		nC
Q_{gs}	V_{DS}=15V, V_{GS}=4.5V, I_D=4.0A		1.8		nC
Q_{gd}	V_{DS}=15V, V_{GS}=4.5V, I_D=4.0A		1.4		nC
C_{rss}	V_{DS}=15V, V_{GS}=0, f=1.0MHz		53		pF
C_{iss}	V_{DS}=15V, V_{GS}=0, f=1.0MHz		760		pF
C_{oss}	V_{DS}=15V, V_{GS}=0, f=1.0MHz		50		pF
t_{on}	V_{DD}=15V, V_{GS}=10V, I_D=1.0A, R_L=3.6Ω, R_G=6.0Ω		40		ns
t_{off}	V_{DD}=15V, V_{GS}=10V, I_D=1.0A, R_L=3.6Ω, R_G=6.0Ω		75		ns

R1 (9-October 2012)

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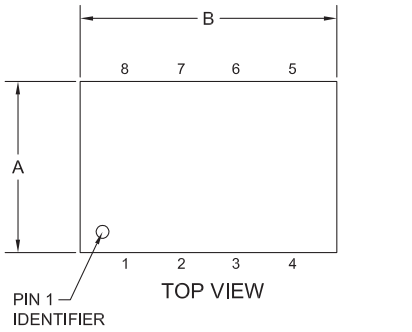
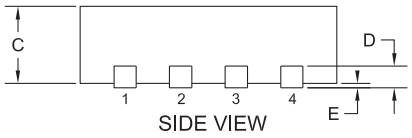
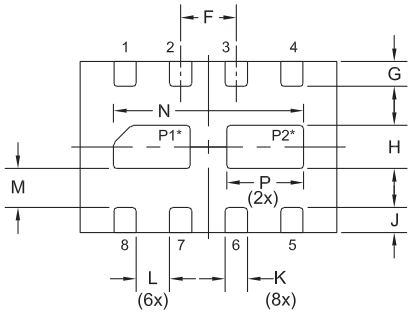
TLM832DS CASE - MECHANICAL OUTLINE





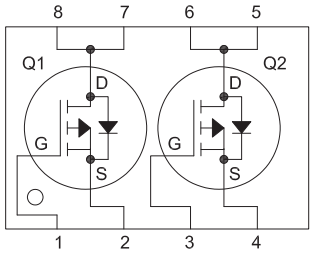


* Exposed pad P1 common to pins 7 and 8
Exposed pad P2 common to pins 5 and 6

DIMENSIONS				
	INCHES		MILLIMETERS	
SYMBOL	MIN	MAX	MIN	MAX
A	0.077	0.081	1.95	2.05
B	0.116	0.120	2.95	3.05
C	0.031	0.039	0.80	1.00
D	0.006	0.010	0.16	0.25
E	0.000	0.002	0.00	0.05
F	0.026		0.65	
G	0.008	0.016	0.19	0.40
H	0.014	0.024	0.35	0.61
J	0.008	0.016	0.19	0.40
K	0.008	0.012	0.21	0.31
L	0.013	0.017	0.34	0.44
M	0.006	–	0.15	–
N	0.087		2.22	
P	0.029	0.039	0.74	1.00

TLM832DS (REV:R1)

PIN CONFIGURATION



LEAD CODE:

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

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