

General Description

The CMS7465 uses advanced trench technology to provide excellent RDS(ON).

This device is suitable for use as a wide variety of applications.

Features

- Enhancement mode
- Low ON-resistance
- RoHS Compliant

Absolute Maximum Ratings

Symbol	Parameter	Rating	Units
V_{DS}	Drain-Source Voltage	150	V
V_{GS}	Gate-Source Voltage	± 20	V
I_D	Continuous Drain Current	3	A
$I_{D@T_C=100^\circ C}$	Continuous Drain Current	2.1	A
I_{DM}	Pulsed Drain Current	15	A
P_D	Total Power Dissipation	3	W
T_{STG}	Storage Temperature Range	-55 to 150	$^\circ C$
T_J	Operating Junction Temperature Range	-55 to 150	$^\circ C$

Thermal Data

Symbol	Parameter	Value	Unit
$R_{\theta JA}$	Thermal Resistance Channel-ambient ($t \leq 10s$) ¹	40	$^\circ C/W$
$R_{\theta JA}$	Thermal Resistance Channel-ambient (Steady State) ¹	80	$^\circ C/W$

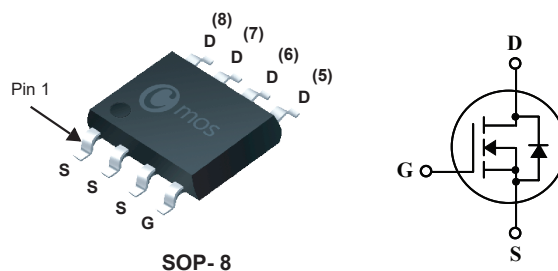
Product Summary

BVDSS	RDS(ON)	ID
150V	240m Ω	3A

Applications

- DC/DC converter
- Switching Regulator

SOP-8 Pin Configuration



Type	Package	Marking
CMS7465	SOP-8	CMS7465

Electrical Characteristics ($T_J=25^{\circ}\text{C}$, unless otherwise noted)

Symbol	Parameter	Conditions	Min.	Typ.	Max.	Unit
BV_{DSS}	Drain-Source Breakdown Voltage	$V_{GS}=0V$, $I_D=250\mu A$	150	---	---	V
$R_{DS(ON)}$	Static Drain-Source On-Resistance	$V_{GS}=10V$, $I_D=3A$	---	205	240	$m\Omega$
		$V_{GS}=4.5V$, $I_D=3A$	---	215	260	
$V_{GS(th)}$	Gate Threshold Voltage	$V_{GS}=V_{DS}$, $I_D=250\mu A$	1	---	3	V
I_{DSS}	Drain-Source Leakage Current	$V_{DS}=150V$, $V_{GS}=0V$	---	---	1	μA
I_{GSS}	Gate-Source Leakage Current	$V_{GS}=\pm 20V$, $V_{DS}=0V$	---	---	± 100	nA
g_{fs}	Forward Transconductance	$V_{DS}=10V$, $I_D=3A$	---	4	---	S
Q_g	Total Gate Charge	$I_D=2.3A$	---	12	---	nC
Q_{gs}	Gate-Source Charge	$V_{DS}=75V$	---	4	---	
Q_{gd}	Gate-Drain Charge	$V_{GS}=5.5V$	---	4.3	---	
$T_{d(on)}$	Turn-On Delay Time	$V_{DS}=75V$, $I_D=2.3A$ $R_G=6\Omega$, $R_L=32.7\Omega$ $V_{GS}=10V$	---	8	---	ns
T_r	Rise Time		---	10	---	
$T_{d(off)}$	Turn-Off Delay Time		---	45	---	
T_f	Fall Time		---	22	---	
C_{iss}	Input Capacitance	$V_{DS}=25V$, $V_{GS}=0V$, $f=1MHz$	---	750	---	pF
C_{oss}	Output Capacitance		---	30	---	
C_{rss}	Reverse Transfer Capacitance		---	15	---	

Diode Characteristics

Symbol	Parameter	Conditions	Min.	Typ.	Max.	Unit
V_{SD}	Diode Forward Voltage	$V_{GS}=0V$, $I_S=3A$	---	0.91	1.3	V

Note:

1. Surface Mounted on 1" x 1" FR4 Board.

This product has been designed and qualified for the consumer market.

Cmos assumes no liability for customers' product design or applications.

Cmos reserves the right to improve product design, functions and reliability without notice.

Typical Characteristics

