

General Description

The CME5P10 uses advanced process technology and design to provide excellent RDS(ON). It can be used in a wide variety of applications.

Features

- P-Channel
- Low ON-resistance.
- 100% avalanche tested
- RoHS Compliant

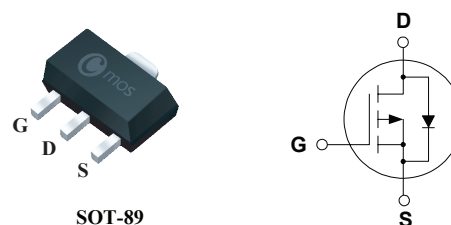
Product Summary

BVDSS	RDSON	ID
-100V	190mΩ	-5A

Applications

- DC/DC converters

SOT-89 Pin Configuration



Type	Package	Marking
CME5P10	SOT-89	5P10

Absolute Maximum Ratings

Symbol	Parameter	Rating	Units
V_{DS}	Drain-Source Voltage	-100	V
V_{GS}	Gate-Source Voltage	±20	V
$I_D@T_A=25^{\circ}\text{C}$	Continuous Drain Current	-5	A
$I_D@T_A=70^{\circ}\text{C}$	Continuous Drain Current	-3.5	A
I_{DM}	Pulsed Drain Current	-20	A
EAS	Single Pulse Avalanche Energy ¹	62.5	mJ
$P_D@T_A=25^{\circ}\text{C}$	Total Power Dissipation	2.5	W
T_{STG}	Storage Temperature Range	-55 to 150	°C
T_J	Operating Junction Temperature Range	150	°C

Thermal Data

Symbol	Parameter	Typ.	Max.	Unit
$R_{\theta JA}$	Thermal Resistance Junction-ambient	---	50	°C/W

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

Symbol	Parameter	Conditions	Min.	Typ.	Max.	Unit
BV_{DSS}	Drain-Source Breakdown Voltage	$V_{GS}=0V$, $I_D=-250\mu A$	-100	---	---	V
$R_{DS(ON)}$	Static Drain-Source On-Resistance	$V_{GS}=-10V$, $I_D=-1A$	---	160	190	$m\Omega$
		$V_{GS}=-4.5V$, $I_D=-1A$	---	169	220	
$V_{GS(th)}$	Gate Threshold Voltage	$V_{GS}=V_{DS}$, $I_D=-250\mu A$	-1	---	-3	V
I_{DSS}	Drain-Source Leakage Current	$V_{DS}=-80V$, $V_{GS}=0V$	---	---	-25	μA
I_{GSS}	Gate-Source Leakage Current	$V_{GS}=\pm 20V$, $V_{DS}=0V$	---	---	± 100	nA
g_{fs}	Forward Transconductance	$V_{DS}=-10V$, $I_D=-5A$	---	11	---	S
Q_g	Total Gate Charge	$I_D=-2A$	---	15	---	nC
Q_{gs}	Gate-Source Charge	$V_{DS}=-50V$	---	4	---	
Q_{gd}	Gate-Drain Charge	$V_{GS}=-4.5V$	---	7	---	
$T_{d(on)}$	Turn-On Delay Time	$V_{DS}=-50V$	---	10	---	ns
T_r	Rise Time	$I_D=-1A$	---	5	---	
$T_{d(off)}$	Turn-Off Delay Time	$R_G=3.3\Omega$	---	55	---	
T_f	Fall Time	$V_{GS}=-10V$	---	22	---	
C_{iss}	Input Capacitance	$V_{DS}=-25V$, $V_{GS}=0V$, $f=1\text{MHz}$	---	1500	---	pF
C_{oss}	Output Capacitance		---	50	---	
C_{rss}	Reverse Transfer Capacitance		---	40	---	

Diode Characteristics

Symbol	Parameter	Conditions	Min.	Typ.	Max.	Unit
I_S	Continuous Source Current	$V_G=V_D=0V$, Force Current	---	---	-5	A
I_{SM}	Pulsed Source Current		---	---	-20	A
V_{SD}	Diode Forward Voltage	$V_{GS}=0V$, $I_S=-5A$	---	-0.87	-1.2	V

Notes:

1.The EAS data shows Max. rating .The test condition is $V_{DS}=-50V$, $V_{GS}=-10V$, $L=5mH$, $I_{AS}=-5A$.

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

