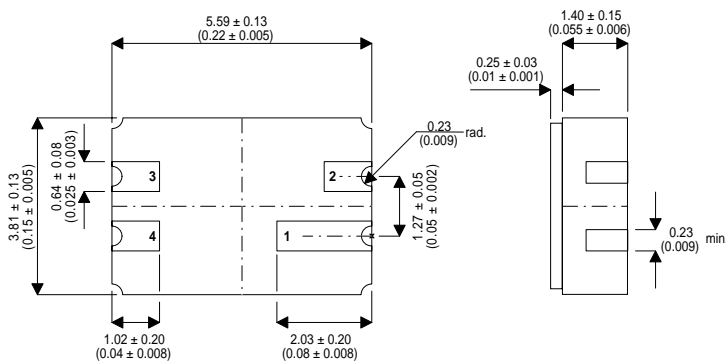


P-CHANNEL ENHANCEMENT MODE MOSFET

MECHANICAL DATA

Dimensions in mm (inches)



LCC3 PACKAGE

Underside View

PAD 1 - Drain PAD 3 - Source
PAD 2 - N/C PAD 4 - Gate

FEATURES

- $B_{VDSS} = 100V$
- $I_D = 300mA$
- Hermetic Surface Mount Package
- Screening Option Available

The VP1008CSM4 is a general purpose P-Channel enhancement mode mosfet in a Ceramic Surface Mount package designed for high rel applications:

ABSOLUTE MAXIMUM RATINGS ($T_A = 25^\circ C$ unless otherwise stated)

V_{DS}	Drain – Source Voltage		100V
V_{GS}	Gate – Source Voltage		±30V
I_D	Continuous Drain Current	@ $T_A = 25^\circ C$	300mA
		@ $T_A = 100^\circ C$	195mA
I_{DM}	Pulsed Drain Current ¹		3A
P_D	Power Dissipation	@ $T_A = 25^\circ C$	400W
		@ $T_A = 100^\circ C$	160W
T_{STG}, T_J	Maximum Junction and Storage Temperature Range		150°C

NOTE:

1) Repetitive Rating: Pulse Width limited by maximum junction temperature.

ELECTRICAL RATINGS ($T_A = 25^\circ\text{C}$ unless otherwise stated)

Characteristic		Test Conditions		Min.	Typ.	Max.	Unit
STATIC CHARACTERISTICS							
BV_{DSS}	Drain – Source Breakdown Voltage	$V_{GS} = 0V$	$I_D = -10\mu A$	-110	-100		V
$V_{GS(TH)}$	Gate Threshold Voltage	$V_{DS} = V_{GS}$	$I_D = -1mA$	-34	-2	-45	
I_{GSS}	Gate – Source Leakage Current	$V_{GS} = \pm 20V$	$V_{GS} = 0V$ $T_J = 125^\circ\text{C}$			± 100 ± 500	nA
I_{DSS}	Zero Gate Voltage Drain Current	$V_{DS} = -100V$	$V_{GS} = 0V$ $T_J = 125^\circ\text{C}$			-10 -500	μA
$I_{D(ON)}$	On State Drain Current ¹	$V_{DS} = -15V$	$V_{GS} = -10V$	-2	-11		A
$R_{DS(ON)}$	Static Drain – Source	$V_{GS} = 10V$	$I_D = -1A$	25		5	Ω
	On-State Resistance ¹		$T_J = 125^\circ\text{C}$	43		8	
g_{fs}	Forward Transconductance ¹	$V_{DS} = -10V$	$I_D = -0.5A$	325	200		mS
g_{os}	Common Source Output Conductance	$V_{DS} = -7.5V$	$I_D = -0.1A$	450			μS
DYNAMIC CHARACTERISTICS							
C_{iss}	Input capacitance	$V_{GS} = 0V$			38	60	pF
C_{oss}	Output capacitance	$V_{DS} = 25V$			16	25	
C_{rss}	Reverse transfer capacitance	$f = 1MHz$			2	5	
SWITCHING CHARACTERISTICS							
t_{on}	Turn-on Time	$V_{DD} = 15V$	$R_L = 23\Omega$		7	10	ns
t_{off}	Turn-off Time	$I_D = 0.6A$	$R_G = 25\Omega$		9	10	
		$V_{GEN} = 10V$					

NOTES:

 1) Pulse Test: Pulse Width = $300\mu s$, Duty Cycle $\leq 2\%$
THERMAL CHARACTERISTICS

Characteristic		Min.	Typ.	Max.	Unit
$R_{\theta JA}$	Junction – Ambient			312.5	$^\circ\text{C/W}$