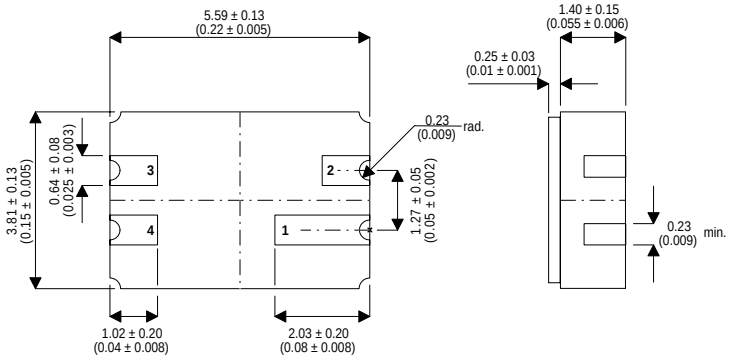
VP1008CSM4

P–CHANNEL ENHANCEMENT MODE MOSFET

MECHANICAL DATA
Dimensions in mm (inches)



LCC3 PACKAGE
Underside View

PAD 1 - Drain
PAD 2 - N/C
PAD 3 - Source
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°C unless otherwise stated)

V_{DS}	Drain – Source Voltage		100V
V_{GS}	Gate – Source Voltage		±30V
I_D	Continuous Drain Current	@T_A = 25°C	300mA
		@T_A = 100°C	195mA
I_{DM}	Pulsed Drain Current [1]		3A
P_D	Power Dissipation	@T_A = 25°C	400W
		@T_A = 100°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.

Semelab plc. Telephone +44(0)1455 556565. Fax +44(0)1455 552612.
E-mail: sales@semelab.co.uk Website: http://www.semelab.co.uk

VP1008CSM4

ELECTRICAL RATINGS (T_A = 25°C unless otherwise stated)

	Characteristic	Test Conditions		Min.	Typ.	Max.	Unit
	STATIC CHARACTERISTICS						
BV_{DSS}	Drain – Source Breakdown Voltage	V_{GS} = 0V	I_D = -10µA	-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} = ±20V	V_{GS} = 0V			±100	nA
			T_J = 125°C			±500	
I_{DSS}	Zero Gate Voltage Drain Current	V_{DS} = -100V	V_{GS} = 0V			-10	µA
			T_J = 125°C			-500	
$I_{D(ON)}$	On State Drain Current [1]	V_{DS} = -15V	V_{GS} = -10V	-2	-11		A
$R_{DS(ON)}$	Static Drain – Source On-State Resistance [1]	V_{GS} = 10V	I_D = -1A	25		5	Ω
			T_J = 125°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 = 23Ω		7	10	ns
t_{off}	Turn-off Time	I_D = 0.6A	R_G = 25Ω		9	10	
		V_{GEN} = 10V					

NOTES:

1) Pulse Test: Pulse Width = 300µs , Duty Cycle ≤ 2%

THERMAL CHARACTERISTICS

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