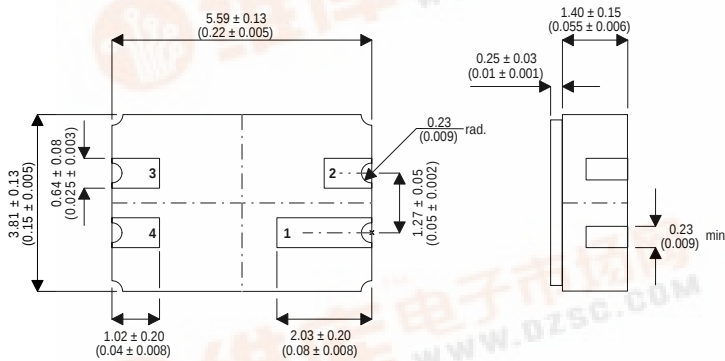


VP1008CSM4

P-CHANNEL
ENHANCEMENT MODE
MOSFET

MECHANICAL DATA

Dimensions in mm (inches)

LCC3 PACKAGE
Underside ViewPAD 1 - Drain
PAD 2 - N/CPAD 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 ($T_A = 25^\circ C$ unless otherwise stated)

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

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 = -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	V _{GS} = 10V	I _D = -1A	25		5	Ω
	On-State Resistance ¹		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 V _{DS} = 25V f = 1MHz			38	60	pF
C _{oss}	Output capacitance				16	25	
C _{rss}	Reverse transfer capacitance				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 V _{GEN} = 10V	R _G = 25Ω		9	10	

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	$^\circ\text{C/W}$