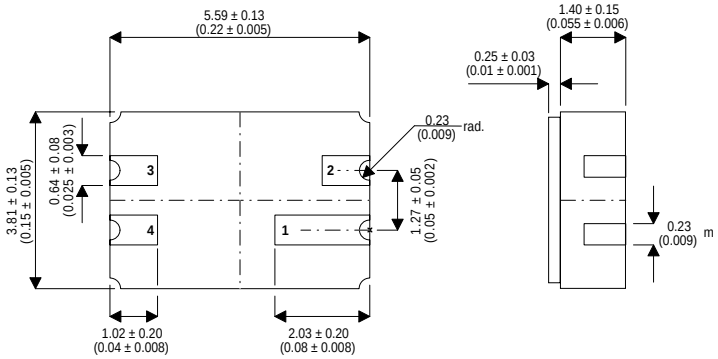
BS250CSM4

P–CHANNEL ENHANCEMENT MODE IN A CERAMIC SURFACE MOUNT PACKAGE FOR HIGH REL APPLICATIONS

MECHANICAL DATA
Dimensions in mm (inches)



LCC3 PACKAGE
Underside View

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

FEATURES

- **V_{DSS} = 45V**
- **I_D = 0.18A**
- **r_{dson} = 14 ohms**
- **Hermetic Surface Mount Package**
- **Screening Option Available**

ABSOLUTE MAXIMUM RATINGS (T_A = 25°C unless otherwise stated)

V_{DS}	Drain – Source Voltage		45V
V_{GS}	Gate – Source Voltage		±30V
I_D	Continuous Drain Current	@T_A = 25°C	0.15A
		@T_A = 100°C	0.095A
I_{DM}	Pulsed Drain Current		0.69A
P_D	Power Dissipation	@T_A = 25°C	0.83W
		@T_A = 100°C	0.32W
T_{STG} , T_J	Maximum Junction and Storage Temperature Range		150°C

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

	Characteristic	Test Conditions		Min.	Typ.	Max.	Unit
	STATIC CHARACTERISTICS						
$V_{(BR)DSS}$	Drain – Source Breakdown Voltage	V_{GS} = 0V	I_D = 100µA	45	60		V
$V_{GS(TH)}$	Gate Threshold Voltage	V_{DS} = V_{GS}	I_D = 1mA	1	2.7	3.5	
I_{GSS}	Gate – Body Leakage	V_{GS} = ±15V	V_{DS} = 0V		±1	±20	nA
I_{DSS}	Zero Gate Voltage Drain Current	V_{DS} = 36V	V_{GS} = 0V			0.5	µA
			T_J = 125°C			2000	
$I_{D(ON)}$	On State Drain Current[1]	V_{DS} = 10V	V_{GS} = 10V	0.2			A
$R_{DS(ON)}$	Drain – Source On-State Resistance[1]	V_{GS} = 10V	I_D = 0.2A			14	Ω
			T_J = 125°C			28	
g_{fs}	Forward Transconductance[1]	V_{DS} = -10V	I_D = 0.2A	100			mS
g_{os}	Common Source Output Conductance	V_{DS} = -7.5V	I_D = -0.1A		600		µS
C_{iss}	Input capacitance	V_{GS} = 0V			25	60	pF
C_{oss}	Output capacitance	V_{DS} = 25V			15	25	
C_{rss}	Reverse transfer capacitance	f = 1MHz			4	8	
t_{on}	Turn–on Time	V_{DD} = 25V	R_L = 120Ω		16		ns
		I_D = 200mA	R_G = 25Ω				
t_{off}	Turn-off Time	V_{GEN} = 10V	(Switching time is essentially independent of operating temp.)		15		

NOTES:

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