



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



## Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



# P-CHANNEL ENHANCEMENT MODE VERTICAL DMOS FET

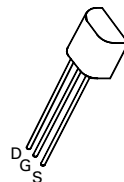
## BS250P

ISSUE 2 – SEPT 93

### FEATURES

- \* 45 Volt  $V_{DS}$
- \*  $R_{DS(on)}=14\Omega$

REFER TO ZVP2106A FOR GRAPHS



E-Line  
TO92 Compatible

### ABSOLUTE MAXIMUM RATINGS.

PARAMETER	SYMBOL	VALUE	UNIT
Drain-Source Voltage	$V_{DS}$	-45	V
Continuous Drain Current at $T_{amb}=25^{\circ}C$	$I_D$	-230	mA
Pulsed Drain Current	$I_{DM}$	-3	A
Gate-Source Voltage	$V_{GS}$	$\pm 20$	V
Power Dissipation at $T_{amb}=25^{\circ}C$	$P_{tot}$	700	mW
Operating and Storage Temperature Range	$T_j; T_{stg}$	-55 to +150	$^{\circ}C$

### ELECTRICAL CHARACTERISTICS (at $T_{amb} = 25^{\circ}C$ ).

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	CONDITIONS.
Drain-Source Breakdown Voltage	$BV_{DSS}$	-45			V	$I_D=-100\mu A, V_{GS}=0V$
Gate-Source Threshold Voltage	$V_{GS(th)}$	-1		-3.5	V	$I_D=-1mA, V_{DS}=V_{GS}$
Gate Body Leakage	$I_{GSS}$			-20	nA	$V_{GS}=-15V, V_{DS}=0V$
Zero Gate Voltage Drain Current	$I_{DSS}$			-500	nA	$V_{GS}=0V, V_{DS}=-25V$
Static Drain-Source on-State Resistance (1)	$R_{DS(on)}$			14	$\Omega$	$V_{GS}=-10V, I_D=-200mA$
Forward Transconductance (1)(2)	$g_{fs}$		150		mS	$V_{DS}=-10V, I_D=-200mA$
Input Capacitance (2)	$C_{iss}$		60		pF	$V_{GS}=0V, V_{DS}=-10V$ $f=1MHz$
Turn-On Time (2)(3)	$t_{(on)}$			20	ns	$V_{DD}=-25V, I_D=-500mA$
Turn-Off Time (2)(3)	$t_{(off)}$			20	ns	

(1) Measured under pulsed conditions. Pulse width=300 $\mu s$ . Duty cycle  $\leq 2\%$  (2) Sample test

(3) Switching times measured with a 50 $\Omega$  source impedance and <5ns rise time on a pulse generator