

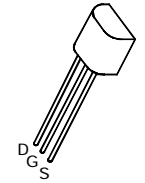
# N-CHANNEL ENHANCEMENT MODE VERTICAL DMOS FET

## BS170P

ISSUE 2 – SEPT 93

### FEATURES

- \* 60 Volt  $V_{DS}$
- \*  $R_{DS(on)}=5\Omega$



E-Line  
TO92 Compatible

REFER TO ZVN3306A FOR GRAPHS

### ABSOLUTE MAXIMUM RATINGS.

PARAMETER	SYMBOL	VALUE	UNIT
Drain-Source Voltage	$V_{DS}$	60	V
Continuous Drain Current at $T_{amb}=25^{\circ}C$	$I_D$	270	mA
Pulsed Drain Current	$I_{DM}$	3	A
Gate-Source Voltage	$V_{GS}$	$\pm 20$	V
Power Dissipation at $T_{amb}=25^{\circ}C$	$P_{tot}$	625	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	$BV_{DSS}$	60			V	$I_D=100\mu A, V_{GS}=0V$
Gate-Source Threshold Voltage	$V_{GS(th)}$	0.8		3	V	$I_D=1mA, V_{DS}=V_{GS}$
Gate Body Leakage	$I_{GSS}$			10	nA	$V_{GS}=15V, V_{DS}=0V$
Zero Gate Voltage Drain Current	$I_{DSS}$			0.5	$\mu A$	$V_{GS}=0V, V_{DS}=25V$
Static Drain-Source on-State Resistance (1)	$R_{DS(on)}$			5	$\Omega$	$V_{GS}=10V, I_D=200mA$
Forward Transconductance (1)(2)	$g_{fs}$		200		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)	$t_{(on)}$			10	ns	$V_{DD}=15V, I_D=600mA$
Turn-Off Time (2)(3)	$t_{(off)}$			10	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

## X-ON Electronics

Largest Supplier of Electrical and Electronic Components

*Click to view similar products for [MOSFET](#) category:*

*Click to view products by [Diodes Incorporated](#) manufacturer:*

Other Similar products are found below :

[614233C](#) [648584F](#) [MCH3443-TL-E](#) [MCH6422-TL-E](#) [FDPF9N50NZ](#) [FW216A-TL-2W](#) [FW231A-TL-E](#) [APT5010JVR](#) [NTNS3A92PZT5G](#)  
[IRF100S201](#) [JANTX2N5237](#) [2SK2464-TL-E](#) [2SK3818-DL-E](#) [FCA20N60\\_F109](#) [FDZ595PZ](#) [STD6600NT4G](#) [FSS804-TL-E](#) [2SJ277-DL-E](#)  
[2SK1691-DL-E](#) [2SK2545\(Q,T\)](#) [D2294UK](#) [405094E](#) [423220D](#) [MCH6646-TL-E](#) [TPCC8103,L1Q\(CM](#) [367-8430-0972-503](#) [VN1206L](#)  
[424134F](#) [026935X](#) [051075F](#) [SBVS138LT1G](#) [614234A](#) [715780A](#) [NTNS3166NZT5G](#) [751625C](#) [873612G](#) [IRF7380TRHR](#)  
[IPS70R2K0CEAKMA1](#) [RJK60S3DPP-E0#T2](#) [RJK60S5DPK-M0#T0](#) [APT5010JVFR](#) [APT12031JFLL](#) [APT12040JVR](#) [DMN3404LQ-7](#)  
[NTE6400](#) [JANTX2N6796U](#) [JANTX2N6784U](#) [JANTXV2N5416U4](#) [SQM110N05-06L-GE3](#) [SIHF35N60E-GE3](#)