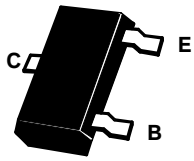
SOT23 N CHANNEL ENHANCEMENT MODE VERTICAL DMOS FET

Issue 2 - October 1997

BST82

PARTMARKING DETAIL – O2



SOT23

ABSOLUTE MAXIMUM RATINGS.

PARAMETER	SYMBOL	VALUE	UNIT
Drain Source Voltage	V_{DS}	80	V
Drain Source Voltage (non repetitive peak tp ≤ 2ms)	$V_{DS(sm)}$	100	V
Continuous Drain Current at T_{amb}=25°C	I_D	175	mA
Drain Current Peak	I_{DM}	600	mA
Gate-Source Voltage	V_{GS}	± 20	V
Max Power Dissipation at T_{amb}=25°C	P_D	300	mW
Operating and Storage Temperature Range	T_j:T_{stg}	-55 to +150	°C

ELECTRIAL CHARACTERISTICS (at T_{amb} = 25°C unless otherwise stated).

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	CONDITIONS.
Drain Source Breakdown Voltage	B_{VDSS}	80			V	I_C=100μA
Gate Source Threshold Voltage	$V_{GS(th)}$	1.5		3.5	V	I_D=1mA, V_{DS}=V_{GS}
Gate Body Leakage	I_{GSS}			100	nA	VGS=20V
Emitter Cut-Off Current	I_{DSS}			1	μA	V_{DS}=60V
Static Drain-Source On-state Resistance	$R_{DS(on)}$		7	10	Ω	I_D=150mA, V_{GS}=5V
Transfer Admittance	| yfs |		150		mS	I_D=175mA, V_{DS}=5V
Input Capacitance (2)	C_{iss}		15	30	pF	V_{DS}=10V, V_{GS}=0V f=1MHz
Common Source Output Capacitance (2)	C_{oss}		13	20	pF	
Reverse Transfer Capacitance (2)	C_{rss}		3	6	pF	
Switching Times	T_{on}		4	10	ns	I_D=175mA, V_{DD}=50V V_{GS}=0 to 10V
	T_{off}		4	10	ns	

(1) Swithcing times measured at 150Ω source impedance and <5ns rise time on a pulse generator
(2) Sample test
*Measured under pulsed conditions. Pulse width=300μs. Duty cycle ≤ 2%