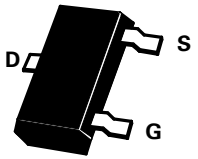
SOT23 P-CHANNEL ENHANCEMENT MODE VERTICAL DMOS FET

ISSUE 2 – SEPTEMBER 1995 ✪

BSS84

PARTMARKING DETAIL — SP



ABSOLUTE MAXIMUM RATINGS.

PARAMETER	SYMBOL	VALUE	UNIT
Drain-Source Voltage	V_{DS}	-50	V
Continuous Drain Current	I_D	-130	mA
Pulsed Drain Current	I_{DM}	-520	mA
Gate-Source Voltage Peak	V_{GS}	±20	V
Power Dissipation at T_{amb}=25°C	P_{TOT}	360	mW
Operating and Storage Temperature Range	t_j:t_{stg}	-55 to +150	°C

ELECTRICAL CHARACTERISTICS (at T_{amb} = 25°C).

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	CONDITIONS.
Drain-Source Breakdown Voltage	BV_{DSS}	-50			V	V_{GS}=0V, I_D=0.25mA
Gate-Source Threashold Voltage	$V_{GS(th)}$	-0.8	-1.5	-2.0	V	V_{DS}=V_{GS} , I_D=-1mA
Zero gate Voltage Drain Current	I_{DSS}		-1 -2	-15 -60	µA µA	T_j=25 °C T_j=125 °C V_{DS}=-50V, V_{GS}=0V(2)
				-100		T_j=25 °C V_{DS}=-25V, V_{GS}=0V
Gate-Source Leakage Current	I_{GSS}		-1	-10	nA	V_{GS} = ±20V V_{DS}=0V
Drain Source On-State Resistance (1)	$R_{DS(on)}$		6	10	Ω	V_{GS}=-5V I_D=-100mA
Forward Transconductance (1) (2)	g_{fs}	0.05	0.07		S	V_{DS}=-25V I_D=-100mA
Input Capacitance (2)	C_{iss}		40		pF	V_{GS}=0V V_{DS}=-25V f=1MHz
Output Capacitance	C_{oss}		15			
Reverse Transfer Capacitance (2)	C_{rss}		6			
Turn-On Time t_{on}	td(on)		10		ns	V_{DD}=-30V I_D=-0.27A V_{GS}=-10V R_{GS}=50Ω
	t_r		10			
Turn-Off Time t_{off}	$t_{d(off)}$		18			
	t_f		25			

* (1) Measured under pulsed conditions. Pulse width = 300µs. Duty cycle 2%
(2) Sample test.