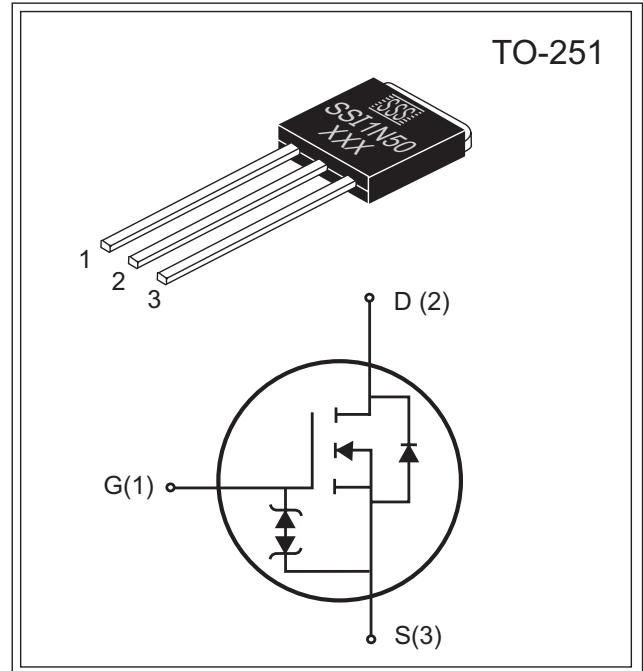




Product Summary		
V _{DS} (V)	I _D (A)	R _{DS(ON)} (Ω) Max
500V	0.8A	18 @V _{GS} = 10V



FEATURES

- ◆ Super high dense cell design for low R_{DS(ON)}.
- ◆ Rugged and reliable.
- ◆ I-Pak package.
- ◆ Pb Free.

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

Parameter	Symbol	Limit	Unit
Drain-Source Voltage	V _{DS}	500	V
Gate-Source Voltage	V _{GS}	±30	V
Drain Current-Continuous @ T _J = 25°C	I _D	0.8	A
-Pulsed ^b	I _{DM}	3.2	A
Drain-Source Diode Forward Current ^a	I _S	0.8	A
Maximum Power Dissipation ^a	P _D	25	W
Operating Junction and Storage Temperature Range	T _J , T _{STG}	-55 to 150	°C

THERMAL CHARACTERISTICS

Thermal Resistance, Junction-to-Case	R _{θJC}	5	°C/W
Thermal Resistance, Junction-to-Ambient ^a	R _{θJA}	100	

South Sea Semiconductor reserves the right to make changes to improve reliability or manufacturability without advance notice.



Electrical Characteristics (T _A = 25°C unless otherwise noted)						
Parameter	Symbol	Condition	Min	Typ ^c	Max	Unit
Drain-Source Breakdown Voltage	BV _{DSS}	V _{GS} =0V, I _D =1mA	500			V
Zero Gate Voltage Drain Current	I _{DSS}	V _{DS} =400V, V _{GS} =0V			10	μA
Gate-Body Leakage	I _{GSS}	V _{GS} =±20V, V _{DS} =0V			±20	μA
Gate Threshold Voltage	V _{GS(th)}	V _{DS} =V _{GS} I _D =250 μA	2	3	4	V
Drain-Source On-State Resistance	R _{DS(ON)}	V _{GS} =10V, I _D =0.4A		14	18	Ω
Forward Transconductance	g _{FS}	V _{DS} =15V, I _D =0.4A		0.5		S
Input Capacitance	C _{ISS}	V _{DS} =25V		100		pF
Output Capacitance	C _{OSS}	V _{GS} =0V		20		
Reverse Transfer Capacitance	C _{RSS}	f=1.0MHz		3		
Turn-On Delay Time	t _{D(ON)}	V _{DD} =300V,		7		ns
Rise Time	t _r	I _D =0.4A,		6		
Turn-Off Delay Time	t _{D(OFF)}	V _{GS} =10V,		15		
Fall Time	t _f	R _G =4.7 Ω		30		
Total Gate Charge	Q _g	V _{DD} =480V,		5.5		nC
Gate-Source Charge	Q _{gs}	I _D =0.8A,		2		
Gate-Drain Charge	Q _{gd}	V _{GS} =10V		3		
Diode Forward Voltage	V _{SD}	V _{GS} =0V, I _{SD} =0.8A			1.6	V

Notes :

- a. Surface Mounted on FR4 Board, t ≤ 10 sec.
- b. Pulse Test : Pulse Width ≤ 300 μs, Duty Cycle ≤ 2%.
- c. Guaranteed by design, not subject to production testing.