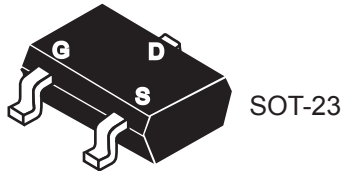
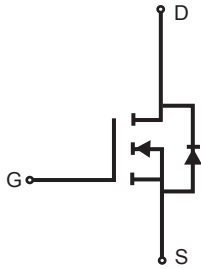


N-Channel Enhancement Mode Field Effect Transistor



PRODUCT SUMMARY

V_{DS} (V)	I_D (A)	$R_{DS(ON)}$ (Ω) Max
60V	0.25A	3.0 @ $V_{GS} = 10V$
		4.0 @ $V_{GS} = 5V$

FEATURES

- Low $R_{DS(ON)}$ by super dense cell technology.
- High current handling capability.
- Rugged and reliable.
- Surface Mount package.

ABSOLUTE MAXIMUM RATINGS ($T_A = 25^\circ C$ unless otherwise noted)

Parameter	Symbol	Limit	Unit
Drain-Source Voltage	V_{DS}	60	V
Gate-Source Voltage	V_{GS}	± 20	V
Drain Current-Continuous @ $T_J = 125^\circ C$	I_D	250	mA
Drain Current-Pulsed ^b	I_{DM}	1	A
Drain-Source Diode Forward Current ^a	I_S	250	mA
Maximum Power Dissipation ^a	P_D	200	mW
Operating Junction and Storage Temperature Range	T_J, T_{STG}	-55 to 150	$^\circ C$

THERMAL CHARACTERISTICS

Thermal Resistance, Junction-to-Ambient ^a	$R_{\theta JA}$	625	$^\circ C/W$
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N-CHANNEL 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 =10 μA	60			V
Zero Gate Voltage Drain Current	I _{DSS}	V _{DS} =60V, V _{GS} =0V			1	μA
Gate-Body Leakage	I _{GSS}	V _{GS} =±20V, V _{DS} =0V			±100	nA
Gate Threshold Voltage	V _{GS(th)}	V _{GS} =V _{DS} , I _D =250 μA	1	2	2.5	V
Drain-Source On-State Resistance	R _{DS(on)}	V _{GS} =10V, I _D =250mA		1.6	3	mΩ
		V _{GS} =5V, I _D =50mA		2	4	
On-State Drain Current	I _{D(on)}	V _{DS} =7V, V _{GS} =10V	500			mA
Forward Transconductance	g _{FS}	V _{DS} =7V, I _D =200mA	75			mS
Input Capacitance	C _{ISS}	V _{DS} =25V V _{GS} =0V f=1.0MHz		19	55	pF
Output Capacitance	C _{OSS}			12	26	
Reverse Transfer Capacitance	C _{RSS}			3	6	
Turn-On Delay Time	t _{D(on)}	V _{DD} =30V, I _D =100mA, V _{GS} =10V, R _{GEN} =10Ω,		8	25	ns
Rise Time	t _r			5		
Turn-Off Delay Time	t _{D(off)}			8	22	
Fall Time	t _f			3		
Diode Forward Voltage	V _{SD}	V _{GS} =0V, I _D =250mA		0.8	1.4	V

Notes :

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