

FEATURES

- Load Switch for Portable Devices.
- DC/DC Converter.
- TrenchFET Power MOSFET.

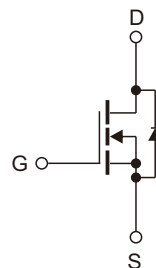
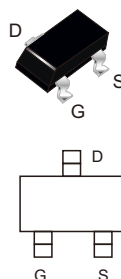


Product Summary			
V_{DS}	$R_{DS(on)}$ (m Ω) MAX	I_D (A)	Q_g (Typ)
60V	105 @ 10V	3.0	6.0nc
	125 @ 4.5V		

MECHANICAL DATA

- Case:SOT-23(TO-236)
- Terminals:Plated solderable per MIL-STD-750,method 2026
- Mounting Position: Any

SOT-23



N-channel MOSFET

Absolute Maximum Ratings ($T_A=25^{\circ}\text{C}$ unless otherwise noted)

Parameters	Symbol	Value	Unit
Drain-Source voltage	V_{DS}	60	V
Gate-Source Voltage	V_{GS}	± 20	V
Continuous Drain Current ($T_J = 150^{\circ}\text{C}$)	I_D	3.0	A
Maximum Power Dissipation @ $T_A=25^{\circ}\text{C}$	P_D	350	mW
Junction and Storage Temperature Range	T_J, T_{STG}	-55 to +150	$^{\circ}\text{C}$

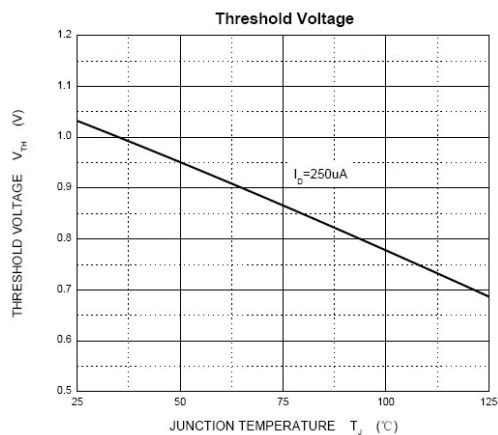
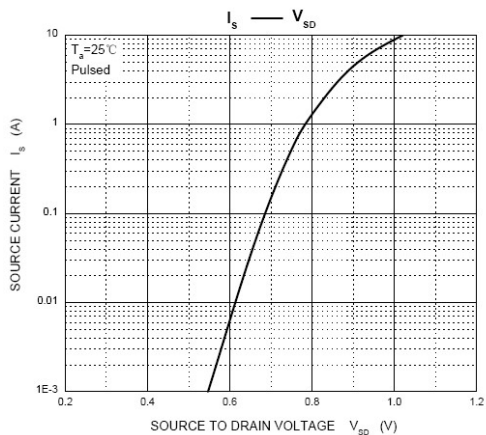
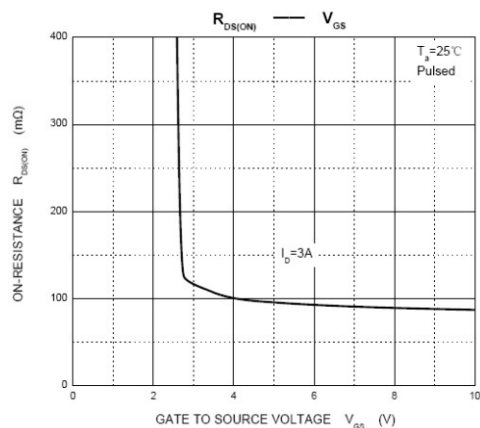
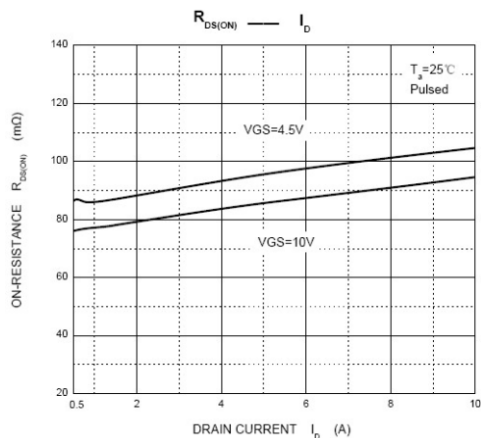
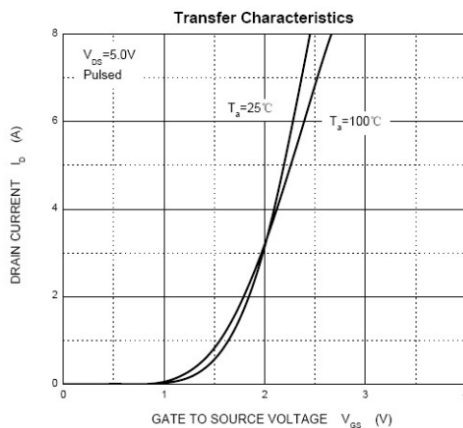
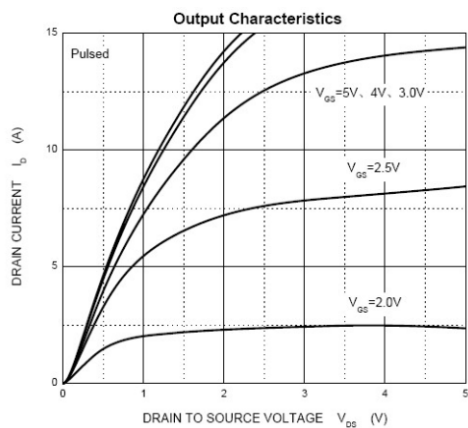
Thermal Resistance Ratings

Parameters	Symbol	Typ	Max	Unit
Junction to Ambient, Steady State ²⁾	$R_{\theta JA}$	-	357	$^{\circ}\text{C}/\text{W}$

2. Device mounted on FR-4 PCB, 1 inch x 0.85 inch x 0.062 inch.

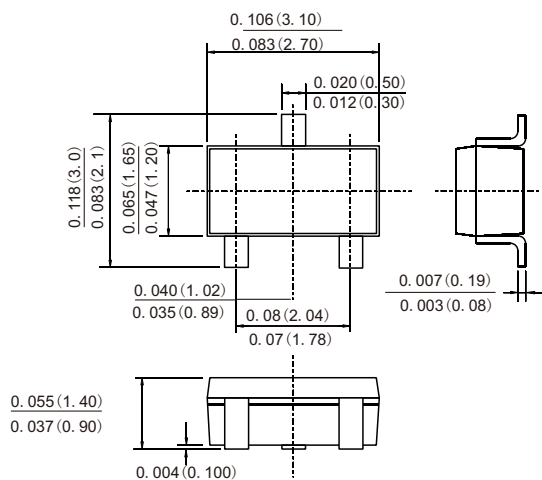
Electrical Characteristics (T_J=25°C unless otherwise noted)

Parameters	Symbol	Conditions	Min	Typ	Max	Unit
Static						
Drain-Source Breakdown Voltage	BV _{DSS}	V _{GS} = 0V, I _D =250μA	60	-	-	V
Zero Gate Voltage Drain Current	I _{DSS}	V _{DS} =60V, V _{GS} =0V, T _C =25°C	-	-	1	μA
Gate-Source Leakage Current	I _{GSS}	V _{GS} = ±20V, V _{DS} =0V	-	-	±100	nA
Gate-Source Threshold Voltage	V _{GS(th)}	V _{DS} = V _{GS} , I _D =250μA	0.5	-	2.0	V
Drain-Source On-State Resistance	R _{DS(on)}	V _{GS} = 10V, I _D =3A	-	-	105	mΩ
		V _{GS} = 4.5V, I _D =3A	-	-	125	
Dynamic						
Input Capacitance	C _{iss}	V _{DS} =30V, V _{GS} =0V, f=1MHz	-	247	-	pF
Output Capacitance	C _{oss}		-	34	-	
Reverse Transfer Capacitance	C _{rss}		-	19.5	-	
Total Gate Charge	Q _g	V _{DS} =30V, V _{GS} =4.5V, I _D =3A	-	6	-	nC
Gate-Source Charge	Q _{gs}		-	1	-	
Gate-Drain Charge	Q _{gd}		-	1.3	-	
Turn-on Delay Time	t _{D(on)}	V _{GS} =10V, V _{DD} =30V, I _D =1.5A, R _{GEN} =6Ω	-	6	-	ns
Turn-On Rise Time	t _r		-	15	-	
Turn-off Delay Time	t _{D(off)}		-	15	-	
Turn-Off Fall Time	t _f		-	10	-	
Drain-Source Body Diode Characteristics						
Diode Forward Voltage	V _{SD}	I _S =3A, V _{GS} =0V	-		1.2	V



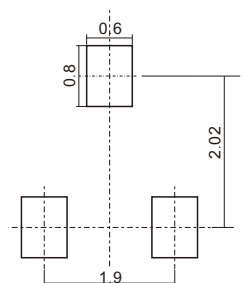
PACKAGE OUTLINE DIMENSIONS

SOT-23



Dimensions in inches and (millimeters)

Suggested Pad Layout



Dimensions in millimeters

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