

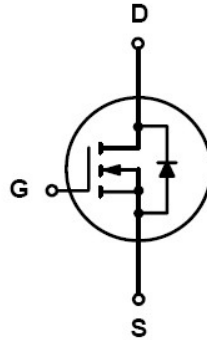
N-Channel Enhancement Power Mosfet Specification

Features

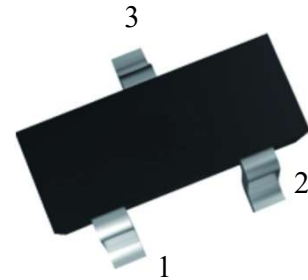
- Advanced trench cell design
- High speed switch

Applications

- Portable appliances
- Notebook/PC appliances
- Power Management
- DC/DC Converter



SOT-23



1: Gate 2: Source 3: Drain

Quick reference

- $BV \cong 60\text{ V}$ $I_D=2.3\text{ A}$
 $R_{DS(ON)} \cong 100\text{ m}\Omega @ V_{GS} = 10\text{ V}$
 $R_{DS(ON)} \cong 120\text{ m}\Omega @ V_{GS} = 5\text{ V}$

■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DS}	60	V
Gate-Source Voltage	V_{GS}	± 20	
Continuous Drain Current	I_D	$T_a=25^\circ\text{C}$	A
		$T_a=70^\circ\text{C}$	
Pulsed Drain Current	I_{DM}	10	
Power Dissipation	P_D	$T_a=25^\circ\text{C}$	W
		$T_a=70^\circ\text{C}$	
Thermal Resistance.Junction- to-Ambient	R_{thJA}	(Note.1)	$^\circ\text{C}/\text{W}$
		(Note.2)	
Junction Temperature	T_J	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	-50 to 150	

Note.1: Surface Mounted on FR4 Board, $t \leq 5\text{ sec}$.

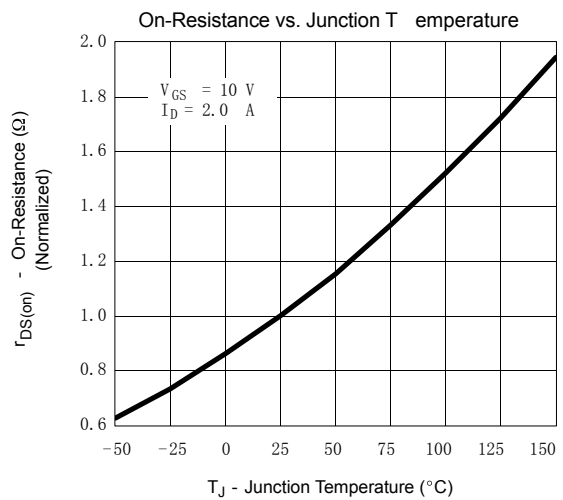
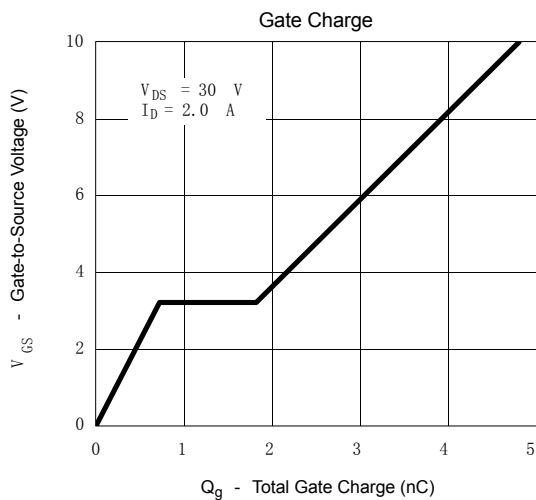
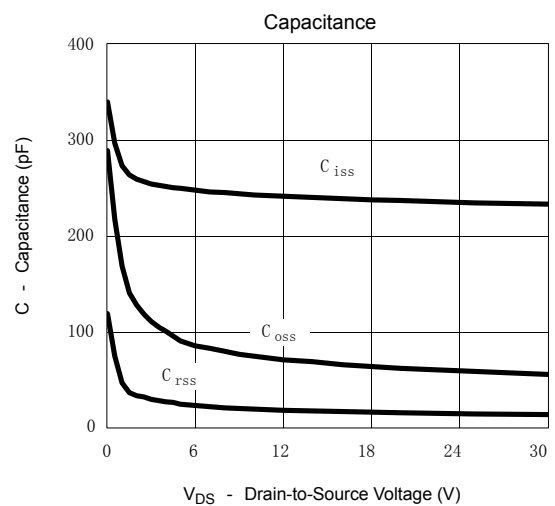
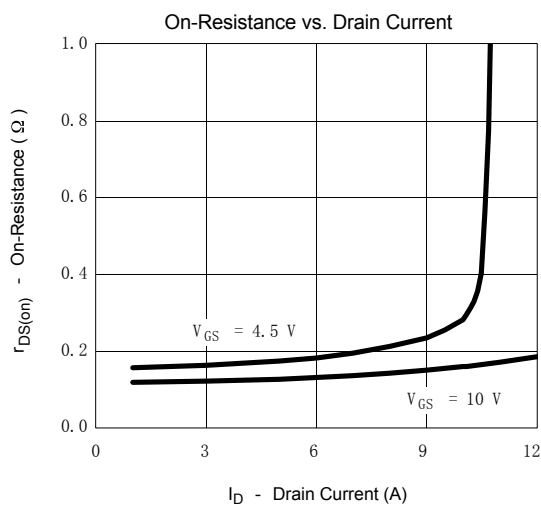
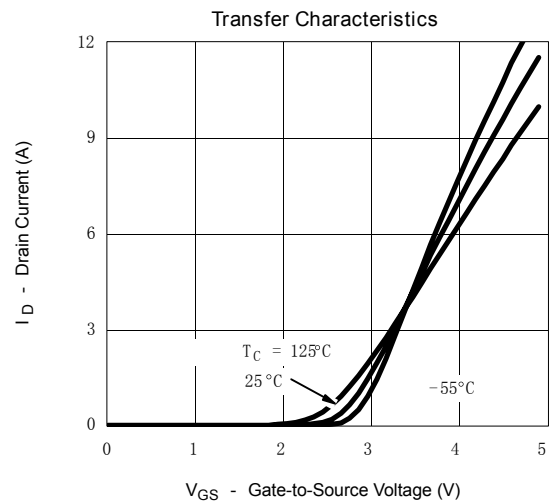
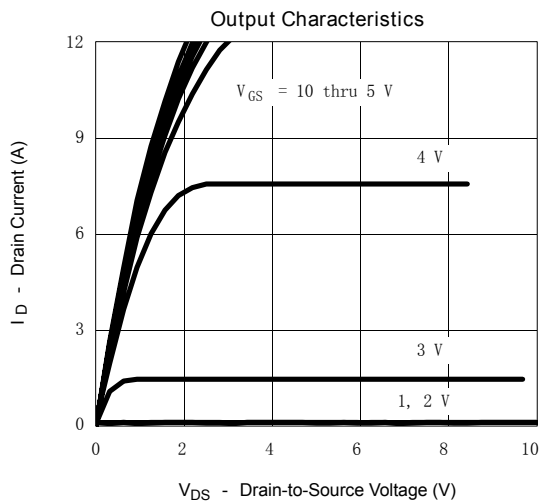
Note.2: Surface Mounted on FR4 Board

■ Electrical Characteristics Ta = 25°C

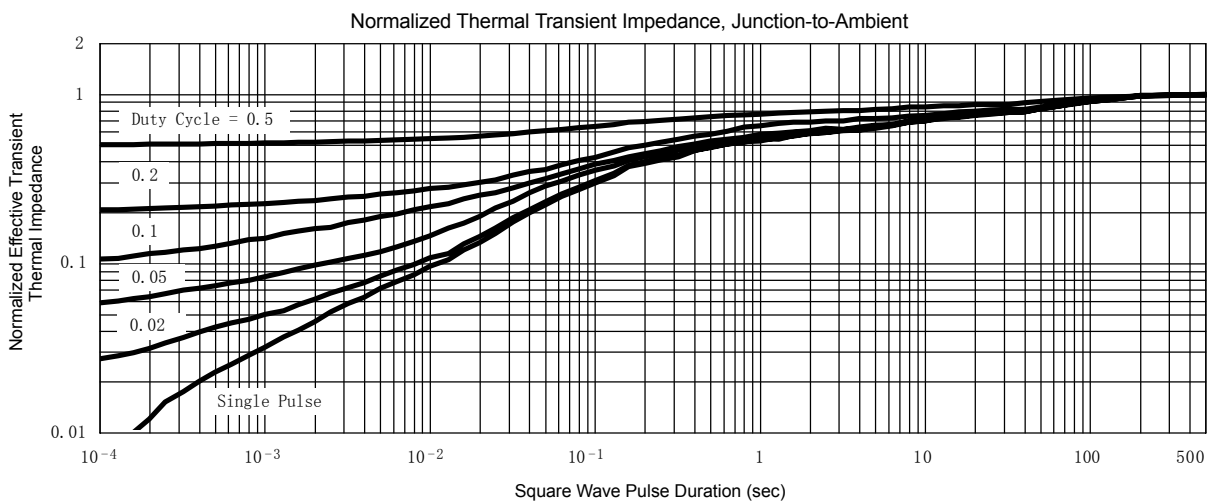
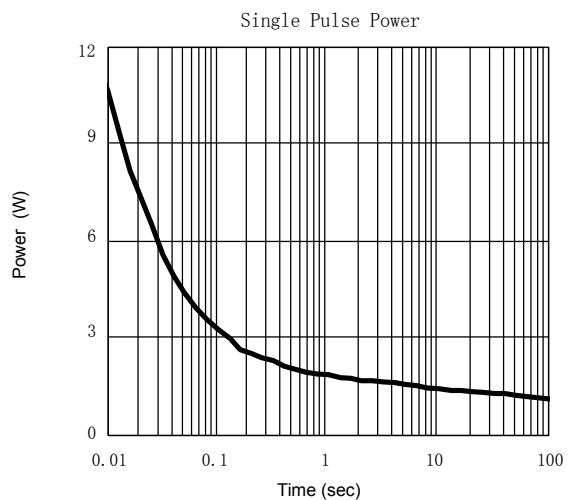
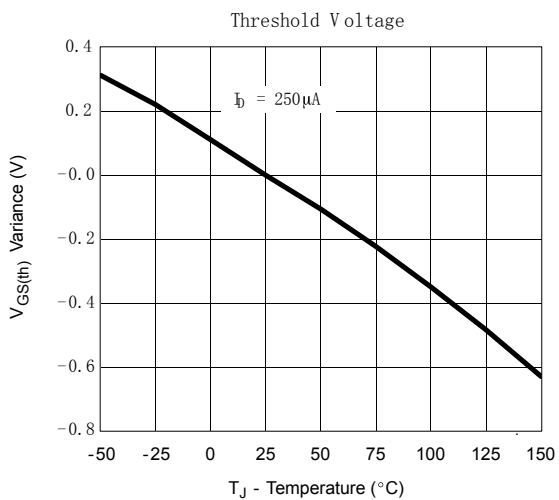
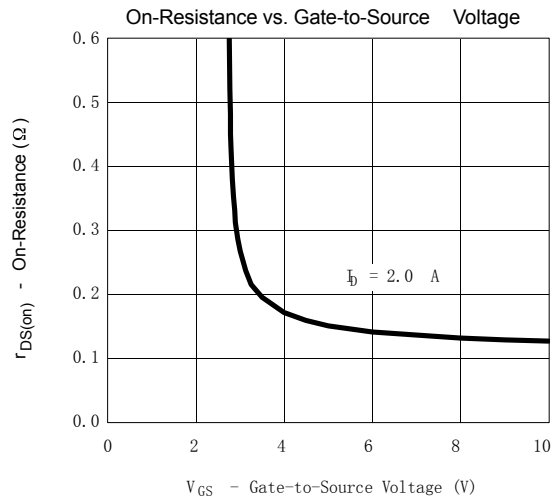
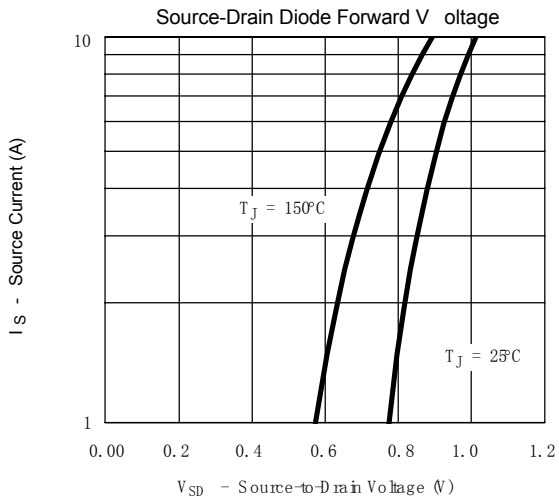
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	V _{DSS}	I _D =250 μA, V _{GS} =0V	60			V
Zero Gate Voltage Drain Current	I _{DSS}	V _{DS} =48V, V _{GS} =0V			1	μA
		V _{DS} =48V, V _{GS} =0V, T _J =85°C			30	
Gate-Body Leakage Current	I _{GSS}	V _{DS} =0V, V _{GS} =±20V			±100	nA
Gate Threshold Voltage	V _{GS(th)}	V _{DS} =V _{GS} , I _D =250 μA	1.0		2.5	V
Static Drain-Source On-Resistance	R _{DS(on)}	V _{GS} =10V, I _D =0.5A			100	mΩ
		V _{GS} =5V, I _D =0.5A			120	
On State Drain Current	I _{D(ON)}	V _{GS} ≥4.5V, V _{DS} =10V	6			A
		V _{GS} ≥4.5V, V _{DS} =4.5V	4			
Forward Transconductance	g _{FS}	V _{DS} =4.5V, I _D =2A		4.6		S
Input Capacitance	C _{iss}	V _{GS} =0V, V _{DS} =25V, f=1MHz		240		pF
Output Capacitance	C _{oss}			50		
Reverse Transfer Capacitance	C _{rss}			15		
Gate Resistance	R _g	V _{GS} =0V, V _{DS} =0V, f=1MHz	0.5		3.3	Ω
Total Gate Charge	Q _g	V _{GS} =10V, V _{DS} =30V, I _D =2A		4.8	10	nC
Gate Source Charge	Q _{gs}			0.8		
Gate Drain Charge	Q _{gd}			1		
Turn-On DelayTime	t _{d(on)}	V _{GS} =4.5V, V _{DS} =30V, I _D =1A, R _L =30Ω, R _G =6Ω		7	15	ns
Turn-On Rise Time	t _r			10	20	
Turn-Off DelayTime	t _{d(off)}			17	35	
Turn-Off Fall Time	t _f			6	15	
Maximum Body-Diode Continuous Current	I _S				1	A
Diode Forward Voltage	V _{SD}	I _S =1A, V _{GS} =0V			1.3	V

Note.Pulse test; pulse width ≤ 300 us, duty cycle ≤ 2%.

Typical Characteristics



Typical Characteristics



单击下面可查看定价，库存，交付和生命周期等信息

[>>SHIKUES\(时科\)](#)