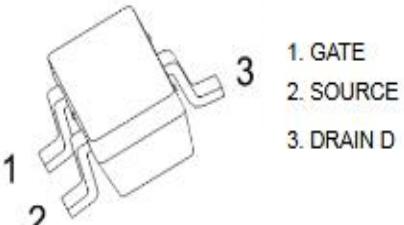
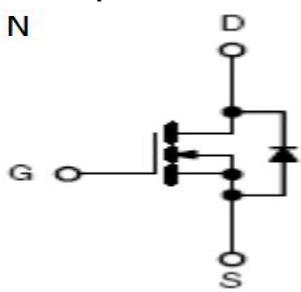


N-Channel 30-V(D-S) MOSFET	SOT-23-3L Plastic-Encapsulate MOSFETs		
<p><u>SOT-23-3L</u></p>  <p>Equivalent Circuit</p> 	<p>Features</p> <ul style="list-style-type: none"> ※ TrenchFET Power MOSFET <p>Application</p> <ul style="list-style-type: none"> ※ Load Switch for Portable Devices ※ DC/DC Converter <p>MARKING</p> 		
V(BR)DSS 30 V	RDS(on)MAX 32mΩ @10V 32mΩ @4.5V		
	ID 5.8A		
Maximum ratings (Ta=25°C unless otherwise noted)			
Parameter	Symbol	Value	Unit
Drain-Source Voltage	VDS	30	V
Gate-Source Voltage	VGS	±12	
Continuous Drain Current	ID	5.8	A
Pulsed Diode Current	IDM	30	
Continuous Source-Drain Current(Diode Conduction)	IS	0.76	
Power Dissipation	PD	0.35	
Thermal Resistance from Junction to Ambient (t≤5s)	Rθ JA	357	°C/W
Operating Junction	TJ	150	°C
Storage Temperature	TSTG	-55~+150	°C

MOSFET ELECTRICAL CHARACTERISTICS

Static Electrical Characteristics ($T_a = 25^\circ\text{C}$ Unless Otherwise Noted)

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Static						
Drain-source breakdown voltage	V(BR)DSS	$V_{GS} = 0V, ID = 250\mu\text{A}$	30			V
Gate-source threshold voltage	$V_{GS(\text{th})}$	$V_{DS} = V_{GS}, ID = 250\mu\text{A}$	0.62		1.1	V
Gate-source leakage	IGSS	$V_{DS} = 0V, V_{GS} = 8/-12V$			± 95	nA
Zero gate voltage drain current	IDSS	$V_{DS} = 30V, V_{GS} = 0V$			1	μA
Drain-source on-state resistancea	RDS(on)	$V_{GS} = 10V, ID = 2.8\text{A}$		25	32	$\text{m}\Omega$
		$V_{GS} = 4.5V, ID = 2.0\text{A}$		29	32	$\text{m}\Omega$
Forward transconductancea	gfs	$V_{DS} = 4.5V, ID = 4\text{A}$	8			S
Diode forward voltage	VSD	IS=1A, $V_{GS}=0V$		0.7	1.3	V
Dynamic						
Input capacitance	Ciss	$V_{DS} = 15V, V_{GS} = 0V, f = 1\text{MHz}$			1050	pF
Output capacitance	Coss			99		pF
Reverse transfer capacitanceb	Crss			77		pF
Total gate charge	Qg	$V_{DS} = 10V, V_{GS} = 4.5V, ID = -4.5\text{A}$		11	14	nC
Gate-source charge	Qgs			1.3		nC
Gate-drain charge	Qgd			2.8		nC
Gate resistance	Rg	f=1MHz			3.6	Ω
Switchingb						
Turn-on delay time	td(on)	$V_{DD} = 10V, RL = 10\Omega, ID \approx 1A, V_{GEN} = 4.5V, R_g = 6\Omega$		7	15	ns
Rise time	tr			15	20	ns
Turn-off delay time	td(off)			38	50	ns
Fall time	tf			3	10	ns
Drain-source body diode characteristics						
Continuous Source-Drain Diode Current	IS	$T_c = 25^\circ\text{C}$			1.2	A
Pulsed Diode forward Current	ISM				20	A
Note :						
1. Repetitive Rating : Pulse width limited by maximum junction temperature.						
2. Surface Mounted on FR4 Board, $t < 5$ sec.						
3. Pulse Test : Pulse Width $\leq 300\mu\text{s}$, Duty Cycle $\leq 2\%$.						
4. Guaranteed by design, not subject to production testing.						

Typical Characteristics :

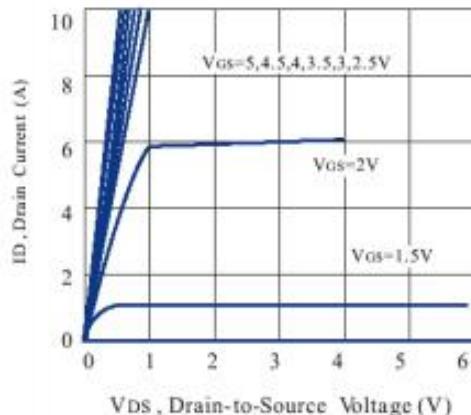


Figure 1. Output Characteristics

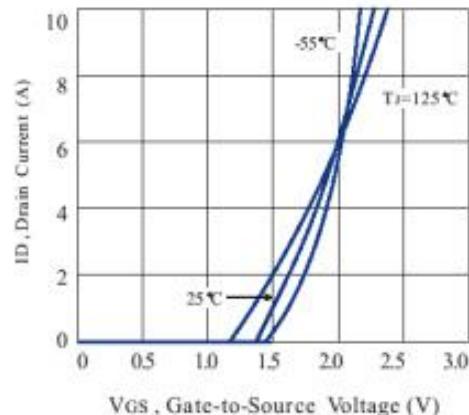


Figure 2. Transfer Characteristics

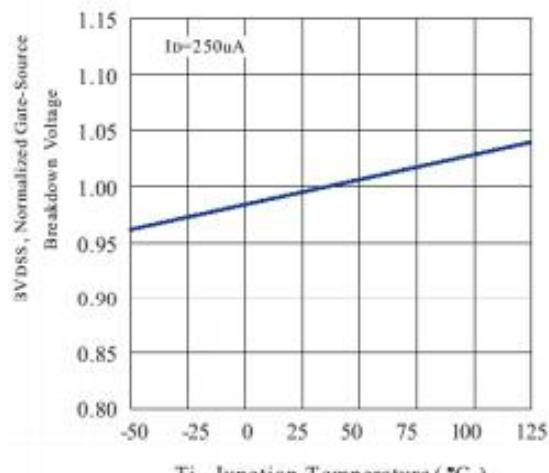


Figure 3. Breakdown Voltage Variation with Temperature

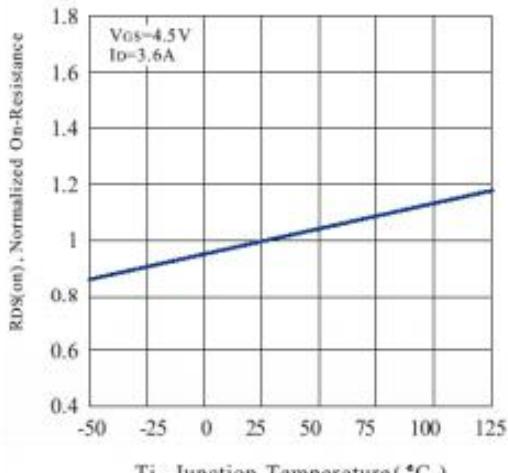


Figure 4. On-Resistance Variation with Temperature

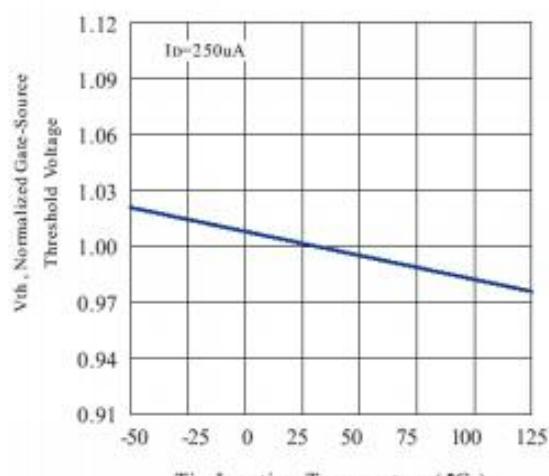


Figure 5. Gate Threshold Variation with Temperature

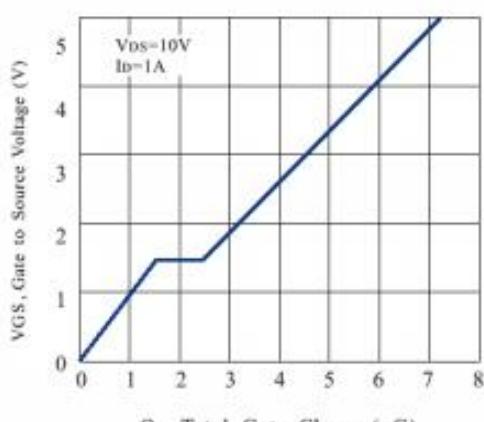


Figure 6. Gate Charge

单击下面可查看定价，库存，交付和生命周期等信息

[>>DIOS\(迪恩思\)](#)