

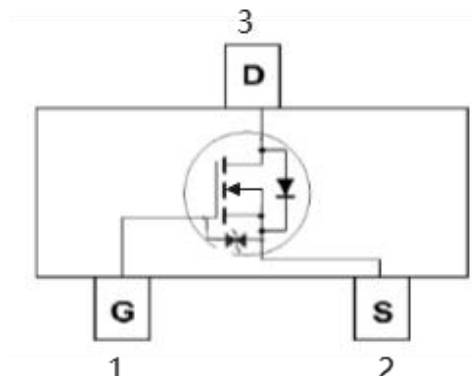
N-channel MOSFET

Features

- Surface-mounted package
- Advanced trench cell design
- Extremely low threshold voltage
- ESD protected

Applications

- Portable appliances
- High speed switch
- Battery Management
- Low power DC to DC converter



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

Parameter	Symbol	Limit	Unit
Drain-source Voltage	V_{DS}	60	V
Gate-source Voltage	V_{GS}	± 20	V
Drain Current-Continuous	I_D	3	A
Junction temperature range	T_J	150	$^{\circ}\text{C}$
Storage temperature range	T_{STG}	$-55 \sim +150$	$^{\circ}\text{C}$
Thermal Resistance, Junction to Ambient, Max.	$R_{\theta JA}$	150	$^{\circ}\text{C/W}$

Electrical Characteristics($T_A=25^{\circ}\text{C}$, unless otherwise noted.)

Parameter	Symbol	Condition	Min	Typ	Max	Unit
Off Characteristics						
Drain-source breakdown voltage	BV _{DSS}	V _{GS} =0V, I _D =250μA	60			V
Drain-source leakage current	I _{DSS}	V _{DS} =60V, V _{GS} =0V			1	μA
Gate-source leakage current,Forward	I _{GSSF}	V _{GS} =20V, V _{DS} =0V			10	μA
Gate-source leakage current,Reverse	I _{GSSR}	V _{GS} =-20V, V _{DS} =0V			-10	μA
On Characteristics						
Gate Threshold voltage	V _{GS(th)}	V _{GS} =0V, I _D =250μA	1.0		2.5	V
Drain-source Voltage	R _{DS(on)}	V _{GS} =10V, I _D =3A		78	90	mΩ
Drain-source on resistance		V _{GS} =4.5V, I _D =3A		89	110	mΩ
Drain-Source Diode Characteristics						
Diode forward voltage drop	V _{SD}	V _{GS} =0V, I _S =3A			1.3	V

Package Information

SC-59

Dimensions in mm

