

P-Channel Enhancement Mode MOSFET

Features

- -20V/3A, $R_{DS(ON)}=120m\Omega(Max)$ @ $V_{GS}=-4.5V$
 $R_{DS(ON)}=150m\Omega(Max)$ @ $V_{GS}=-2.5V$
- Super High dense cell design for extremely low $R_{DS(ON)}$
- Reliable and Rugged
- SC-59 for Surface Mount Package

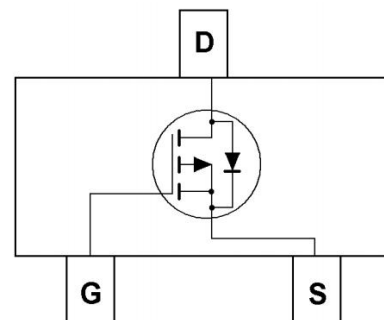
Applications

- Power Management
- Portable Equipment and Battery Powered Systems.

Absolute Maximum Ratings

$T_A=25^{\circ}C$, unless otherwise noted.

Parameter	Symbol	Limit	Unit
Drain-source Voltage	V_{DS}	-20	V
Gate-source Voltage	V_{GS}	± 10	V
Drain Current-Continuous	I_D	-3	A



SC-59

Electrical Characteristics

$T_A=25^{\circ}C$, unless otherwise noted.

Parameter	Symbol	Condition	Min	Typ	Max	Unit
Off Characteristics						
Drain-source breakdown voltage	BV _{DSS}	V _{GS} =0V, I _D =250μA	-20			V
Drain-source leakage current	I _{DSS}	V _{DS} =-20V, V _{GS} =0V			-1	μA
Gate-source leakage current,Forward	I _{GSSF}	V _{GS} =10V, V _{DS} =0V			100	nA
Gate-source leakage current,Reverse	I _{GSSR}	V _{GS} =-10V, V _{DS} =0V			-100	nA
On Characteristics						
Gate Threshold voltage	V _{GS(th)}	V _{DS} =V _{GS} , I _D =-250μA	-0.4		1.0	V
Drain-source on resistance	R _{DS(on)}	V _{GS} = -4.5V, I _D = -3.0A			120	m Ω
		V _{GS} = -2.5V, I _D = -2.0A			150	
Drain-Source Diode Characteristics and Maximum Ratings						
Diode forward voltage drop	V _{SD}	V _{GS} =0V, I _S =-1.25A			-1.2	V

Typical Characteristics

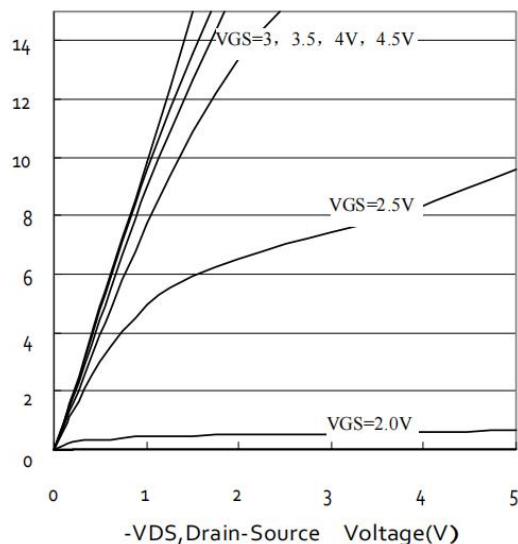


Figure 1. Output Characteristics

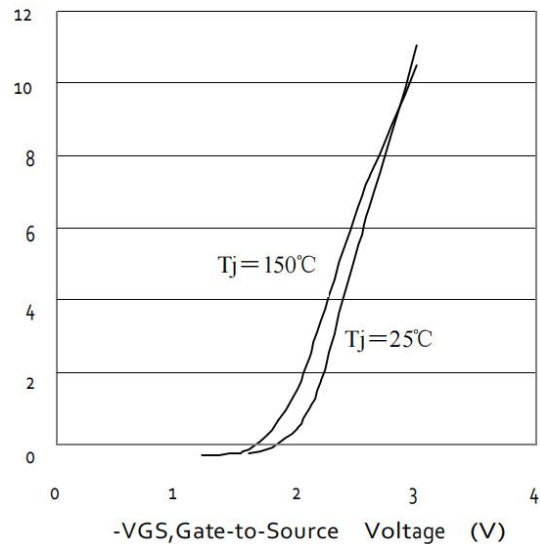


Figure 2. Transfer Characteristics

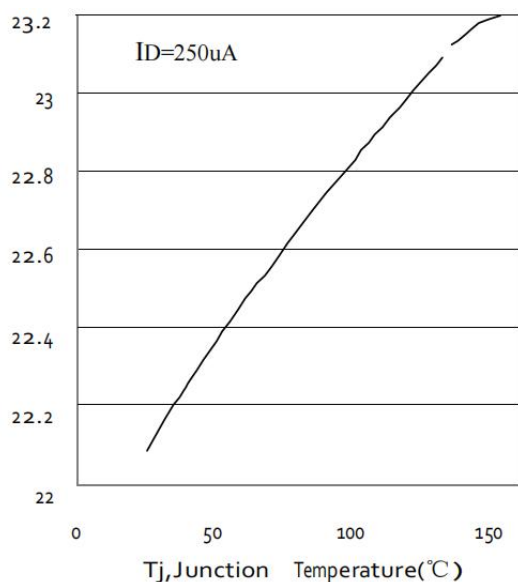


Figure 3. Breakdown Voltage Variation with Temperature

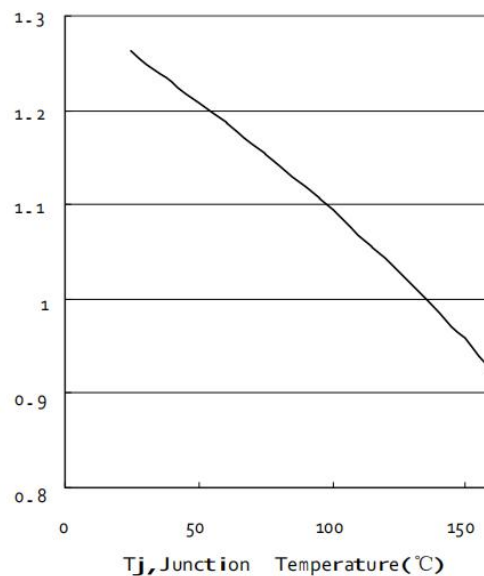


Figure 4. Gate Threshold Variation with Temperature

Typical Characteristics

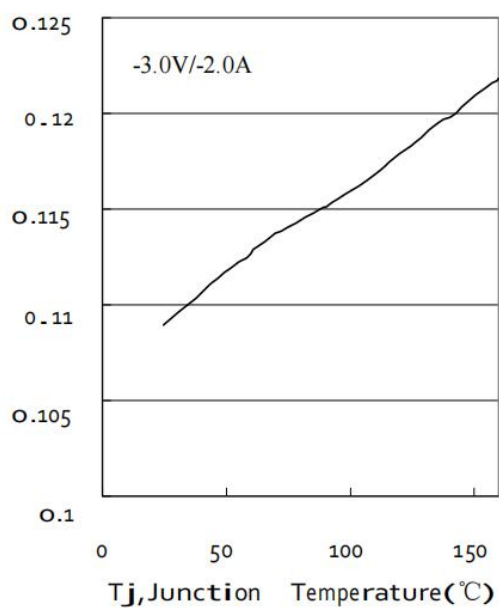


Figure 5. On-Resistance Variation with Temperature

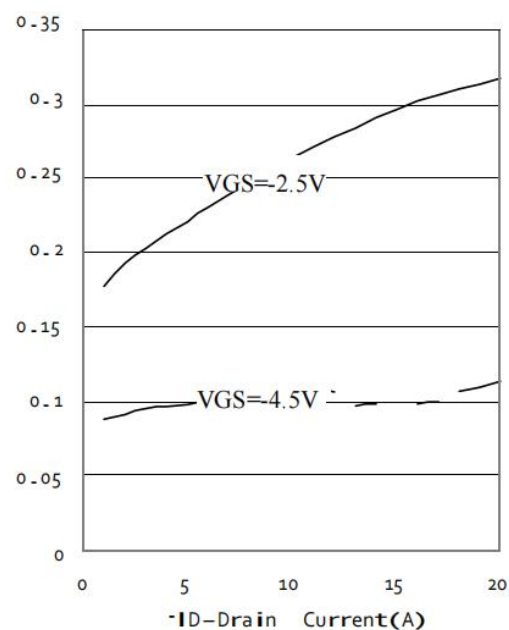


Figure 6. On-Resistance vs. Drain Current

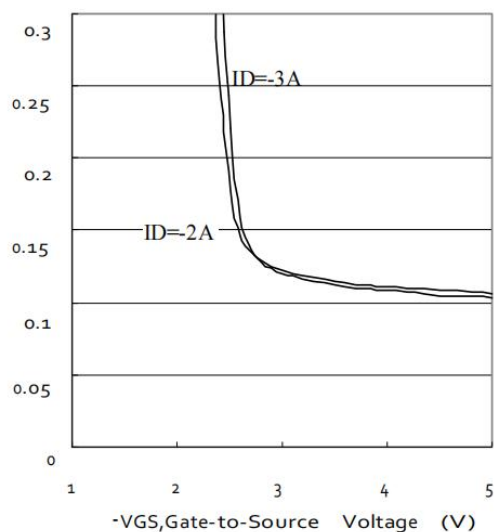


Figure 7. On-Resistance vs. Gate-to-Source Voltage

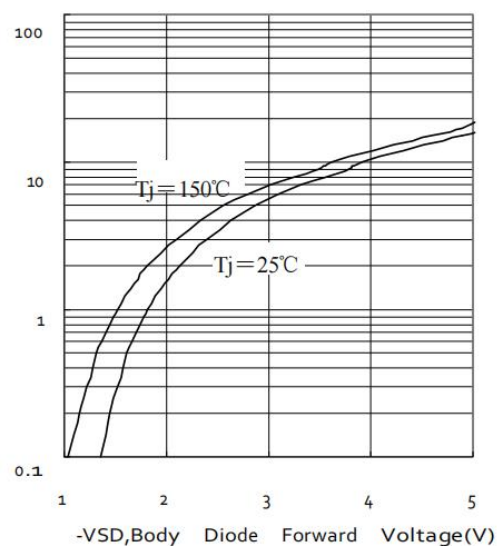


Figure 8. Source-Drain Diode Forward

