

P-Channel Enhancement Mode MOSFET

Feature

-20V/-2A, $R_{DS(ON)} = 120\text{m}\Omega(\text{MAX})$ @ $V_{GS} = -4.5\text{V}$.

$R_{DS(ON)} = 150\text{m}\Omega(\text{MAX})$ @ $V_{GS} = -2.5\text{V}$.

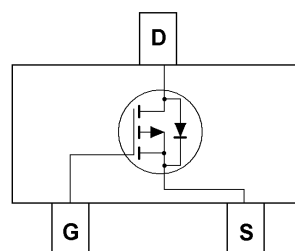
Super High dense cell design for extremely low $R_{DS(ON)}$

Reliable and Rugged

SOT-23 for Surface Mount Package



SOT-23



Applications

- Power Management
- Portable Equipment and Battery Powered Systems.

Absolute Maximum Ratings

$T_A = 25^\circ\text{C}$ Unless Otherwise noted

Parameter	Symbol	Limit	Units
Drain-Source Voltage	V_{DS}	-20	V
Gate-Source Voltage	V_{GS}	± 10	V
Drain Current-Continuous	I_D	-2	A

Electrical Characteristics

$T_A = 25^\circ\text{C}$ Unless Otherwise noted

Parameter	Symbol	Test Conditions	Min	Typ.	Max	Units
Off Characteristics						
Drain to Source Breakdown Voltage	BVDSS	VGS=0V, ID=-250μA	-20	-	-	V
Zero-Gate Voltage Drain Current	IDSS	VDS=-20V, VGS=0V	-	-	-1	μA
Gate Body Leakage Current, Forward	IGSSF	VGS=10V, VDS=0V	-	-	100	nA
Gate Body Leakage Current, Reverse	IGSSR	VGS=-10V, VDS=0V	-	-	-100	nA
On Characteristics						
Gate Threshold Voltage	VGS(th)	VGS= VDS, ID=-250μA	-0.4	-	-1.0	V
Static Drain-source	RDS(ON)	VGS =-4.5V, ID =-2.0A	-	--	120	mΩ
On-Resistance		VGS =-2.5V, ID =-1.5A	-	--	150	mΩ
Drain-Source Diode Characteristics and Maximum Ratings						
Drain-Source Diode Forward Voltage	VSD	VGS =0V, IS=-1.25A			-1.2	V

Typical Characteristics

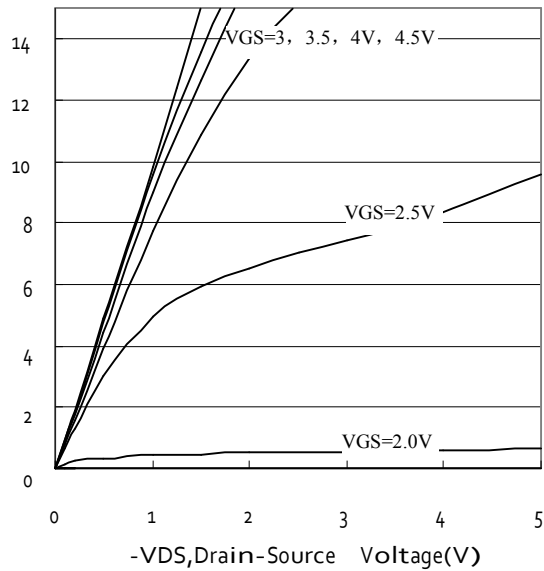


Figure 1. Output Characteristics

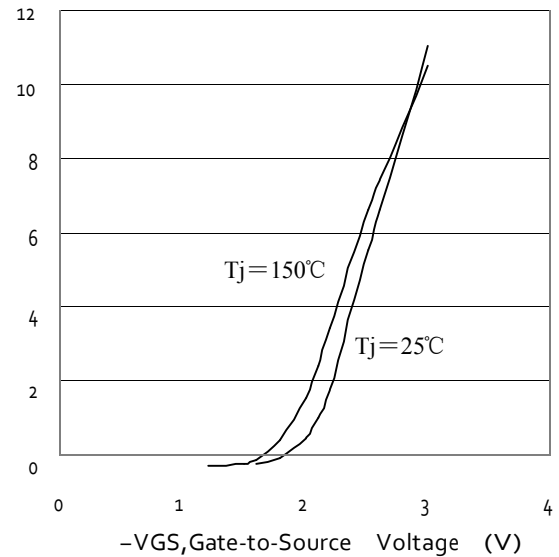


Figure 2. Transfer Characteristics

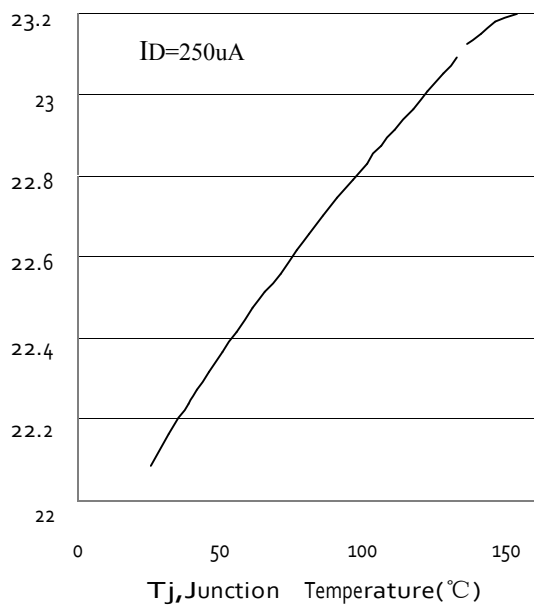


Figure 3. Breakdown Voltage Variation with Temperature

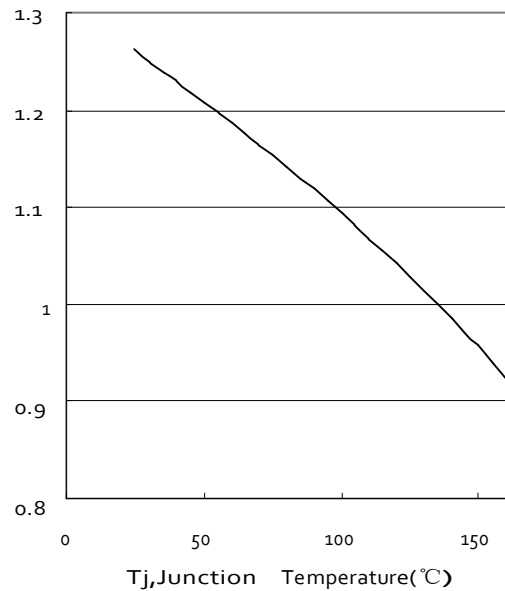


Figure 4. Gate Threshold Variation with Temperature

Typical Characteristics

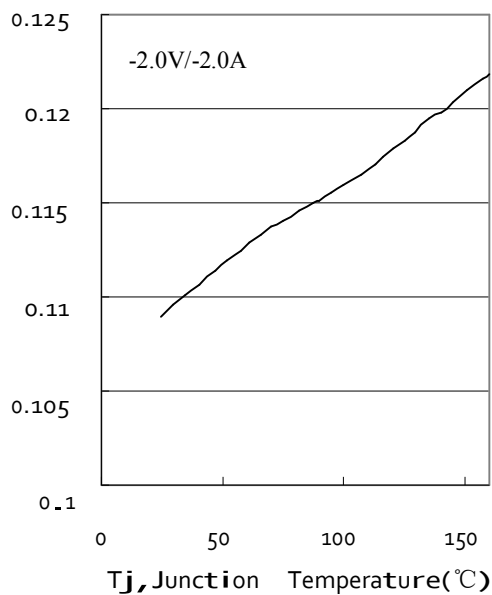


Figure 5. On-Resistance Variation with Temperature

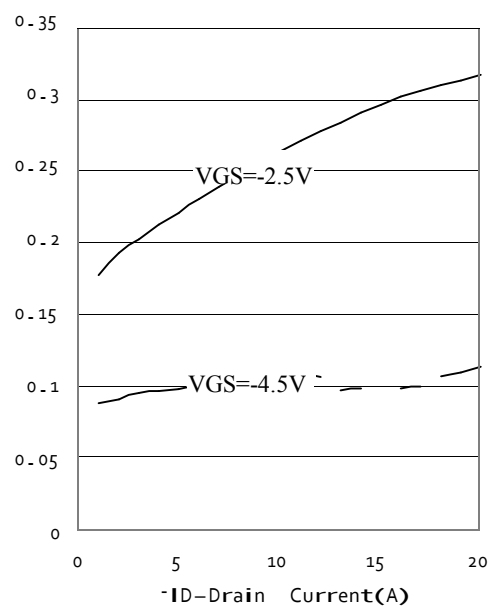


Figure 6. On-Resistance vs. Drain Current

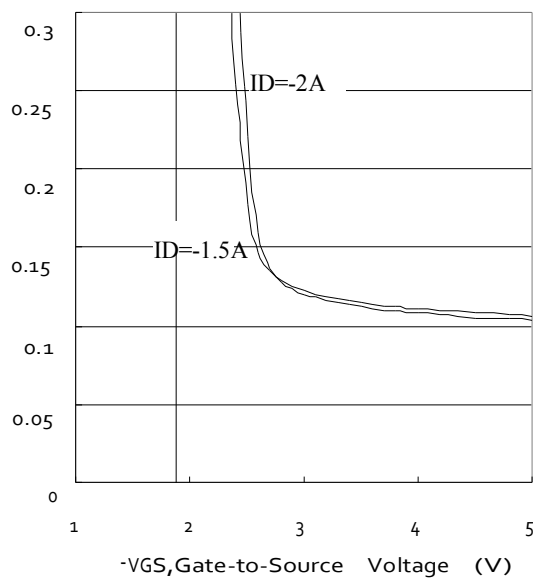


Figure 7. On-Resistance vs. Gate-to-Source Voltage

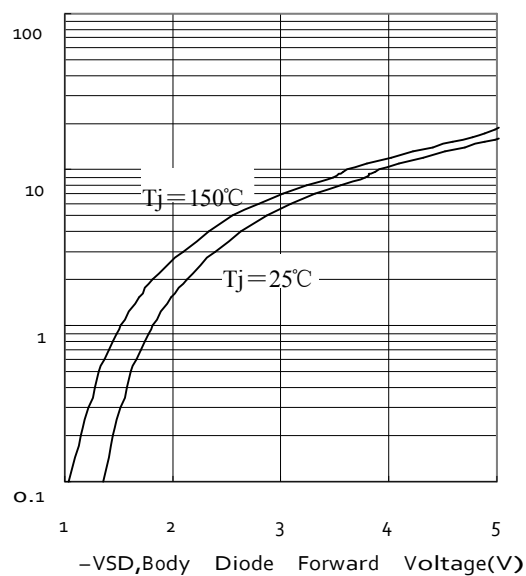


Figure 8. Source-Drain Diode Forward

Package Outline Dimensions (UNIT: mm)

SOT-23

