2SK2158

SHIKE TECHNOLOGY

SOT-23

1: Gate 2: Source 3: Drain

● Feature

50V/0.2A, $R_{DS(ON)}$ = 3.5 Ω (MAX)   @V_{GS} = 5V. Id = 0.2A

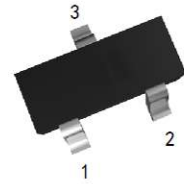$R_{DS(ON)}$ = 10 Ω (MAX)   @V_{GS} = 2.75V. Id = 0.2A

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

Reliable and Rugged.

Low Threshold Voltage (0.5V—1.5V) Make it Ideal for Low Voltage Applications.

SOT-23 for Surface Mount Package.

● Applications

Power Management in DC/DC Converters、   Portable and Battery-powered Products.

● Absolute Maximum Ratings T_A=25℃ Unless Otherwise noted

Parameter	Symbol	Limit	Units
Drain-Source Voltage	V_{DS}	50	V
Gate-Source Voltage	V_{GS}	±20	V
Drain Current-Continuous	I_D	0.2	A

● Electrical Characteristics T_A=25℃ Unless Otherwise noted

Parameter	Symbol	Test Conditions	Min	Typ.	Max	Units
Off Characteristics						
Drain to Source Breakdown Voltage	BVDSS	VGS=0V, ID=250μA	50	-	-	V
Zero-Gate Voltage Drain Current	IDSS	VDS=50V, VGS=0V	-	-	0.5	μA
		VDS=25V, VGS=0V	-	-	0.1	
Gate Body Leakage Current, Forward	IGSSF	VGS=20V, VDS=0V	-	-	100	nA
Gate Body Leakage Current, Reverse	IGSSR	VGS=-20V, VDS=0V	-	-	-100	nA
On Characteristics						
Gate Threshold Voltage	VGS(th)	VGS= VDS, ID=1.0 mA	0.5	-	1.5	V
Static Drain-source On-Resistance	RDS(ON)	VGS=5.0V, ID =0.2A	-	-	3.5	Ω
		VGS =2.75V, ID =0.2A	-	-	10	Ω
Drain-Source Diode Characteristics and Maximum Ratings						
Drain-Source Diode Forward Voltage	VSD	VGS =0V, IS=0.2A			2.5	V

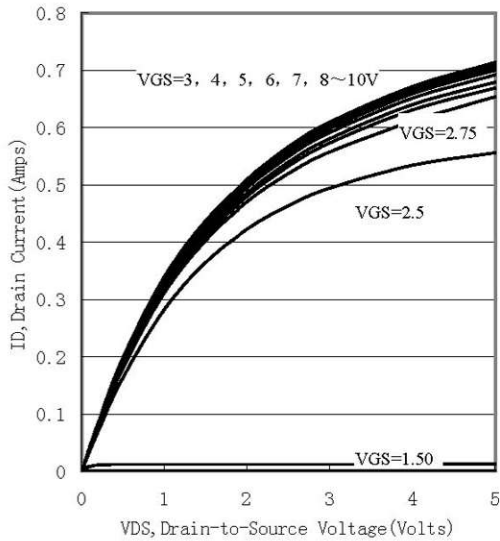## Typical Characteristics

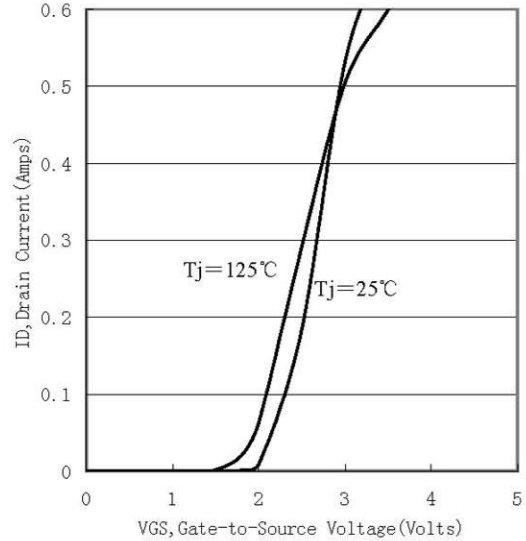Figure 1. Output Characteristics
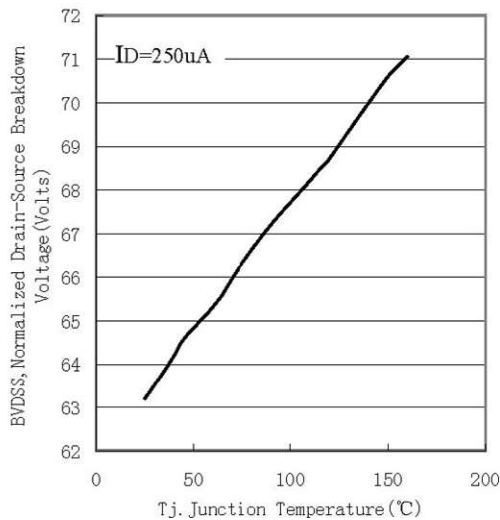

Figure 2. Transfer Characteristics

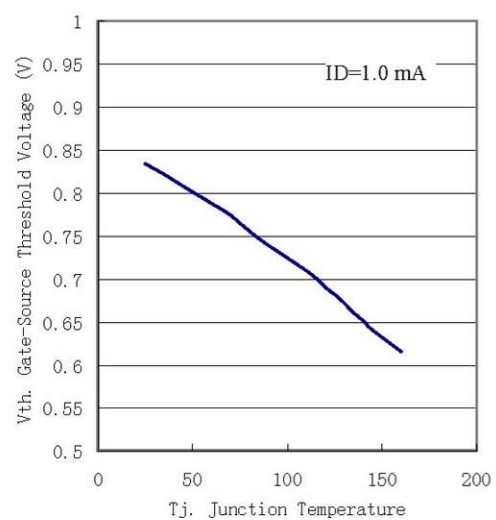Figure 3. Breakdown Voltage Variation
with Temperature

Figure 4. Gate Threshold Variation
with Temperature
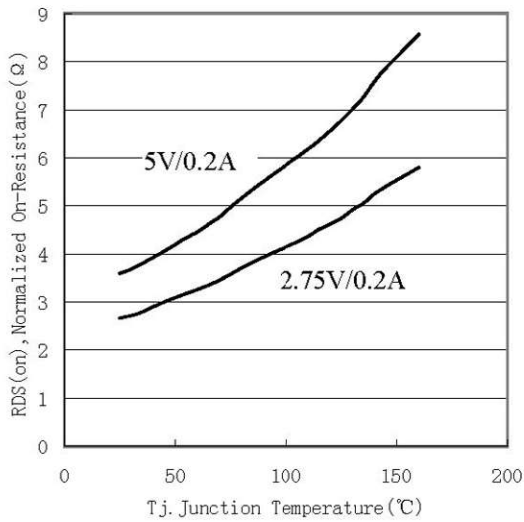
Typical Characteristics

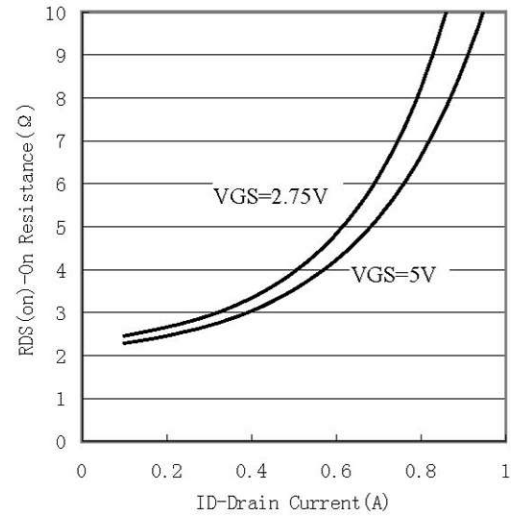Figure 5. On-Resistance Variation with Temperature
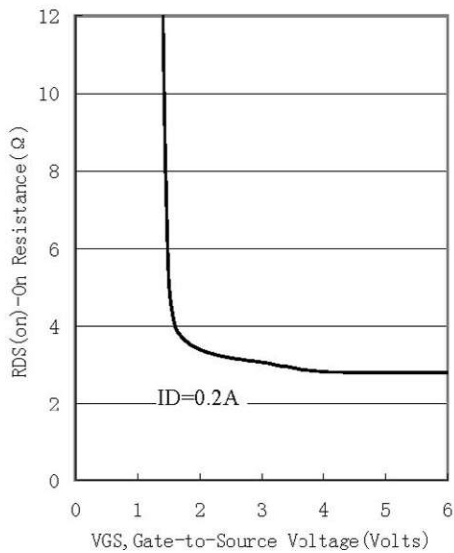
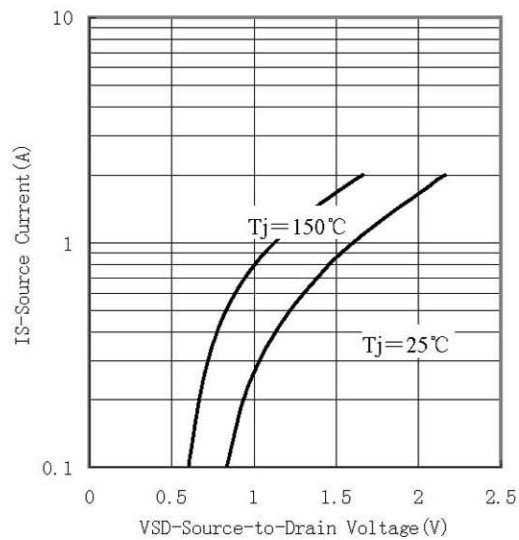Figure 6. On-Resistance vs. Drain Current

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

Figure 8. Source-Drain Diode Forward Voltage