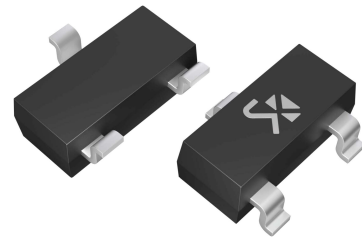


## P-Channel Enhancement Mode MOSFET

### Feature

- -20V/-3A,  $R_{DS(ON)} = 125m\Omega(MAX) @ V_{GS} = -4.5V$ .  
 $R_{DS(ON)} = 140m\Omega(MAX) @ V_{GS} = -2.5V$ .
- Super High dense cell design for extremely low  $R_{DS(ON)}$
- Reliable and Rugged
- SOT-23 for Surface Mount Package

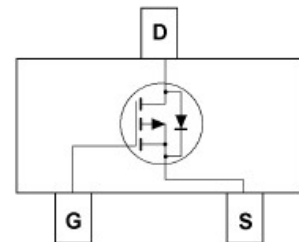


SOT-23

### Applications

- Power Management
- Portable Equipment and Battery Powered Systems.

Marking:E1ALC



### Absolute Maximum Ratings

$T_A = 25^\circ C$  Unless Otherwise noted

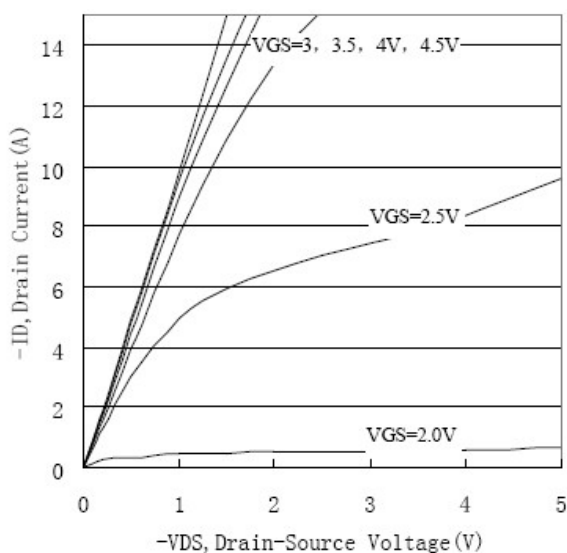
Parameter	Symbol	Limit	Units
Drain-Source Voltage	$V_{DS}$	-20	V
Gate-Source Voltage	$V_{GS}$	$\pm 10$	V
Drain Current-Continuous	$I_D$	-3	A

### Electrical Characteristics

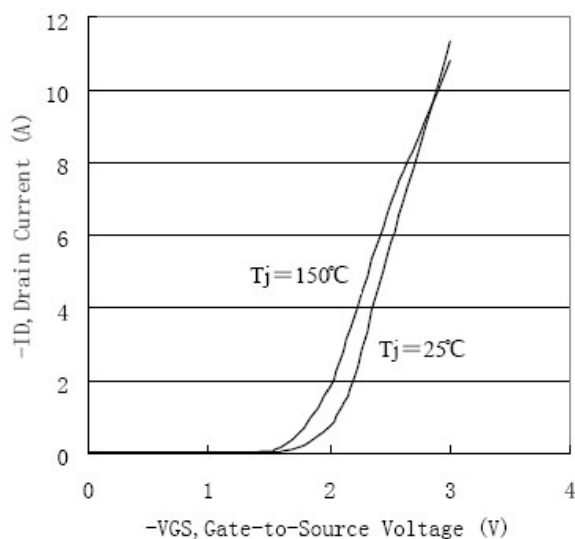
$T_A = 25^\circ C$  Unless Otherwise noted

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 =-3.0A	-	--	120	mΩ
On-Resistance		VGS =2.5V, ID =-2.0A	-	--	150	mΩ
Drain-Source Diode Characteristics and Maximum Ratings						
Drain-Source Diode Forward Voltage	VSD	VGS =0V, IS=-1.25A			-1.2	V

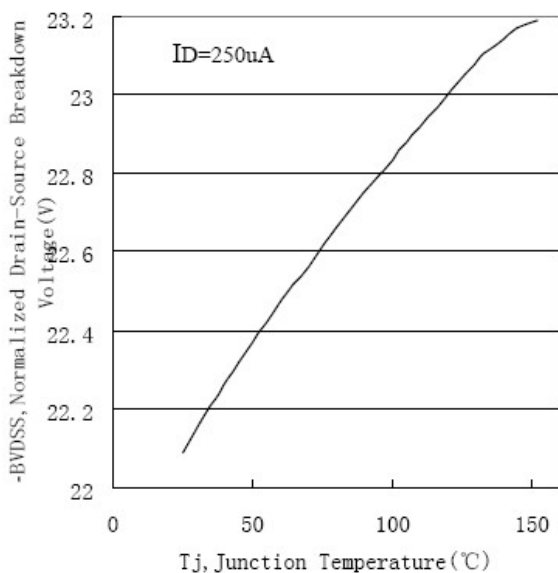
## Typical Characteristics



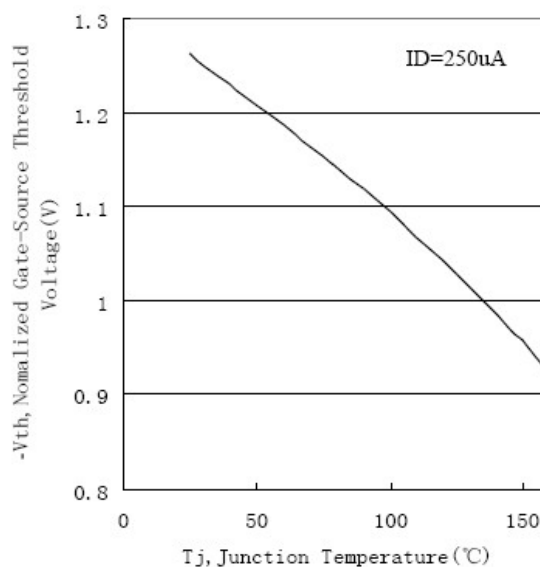
**Figure 1. Output Characteristics**



**Figure 2. Transfer Characteristics**

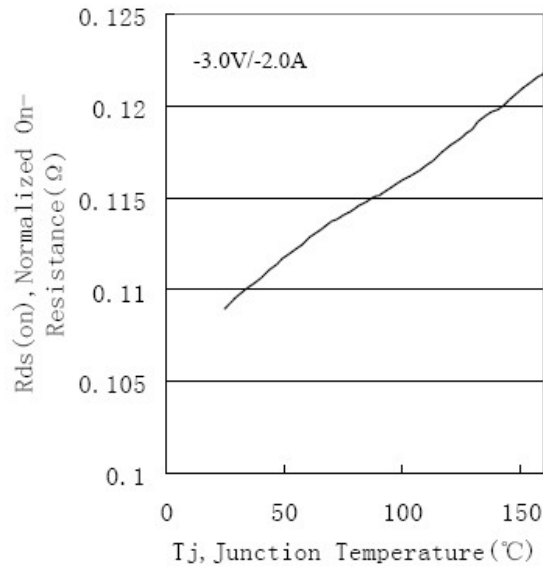


**Figure 3. Breakdown Voltage Variation with Temperature**

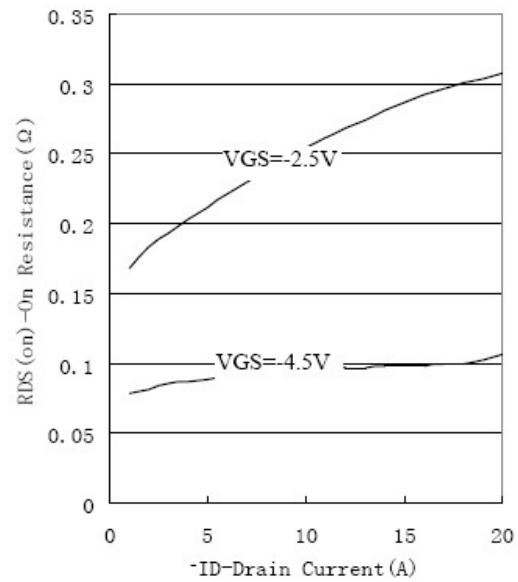


**Figure 4. Gate Threshold Variation with Temperature**

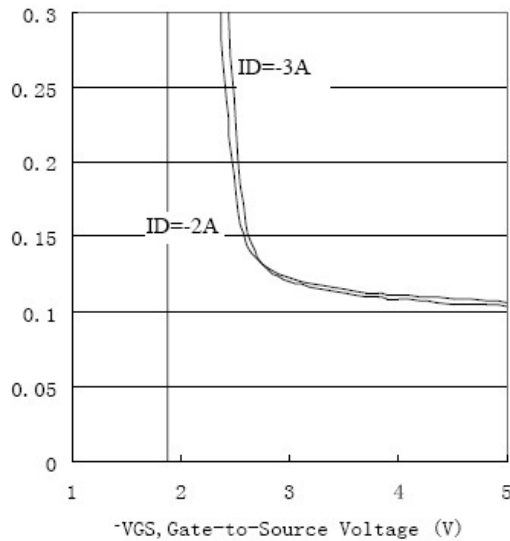
## Typical Characteristics



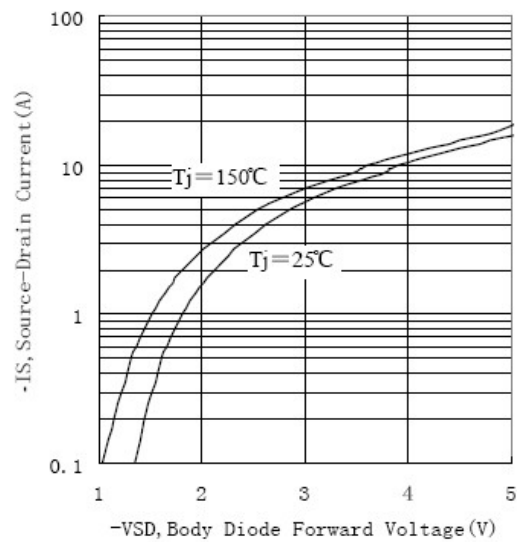
**Figure 5. On-Resistance Variation with Temperature**



**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

