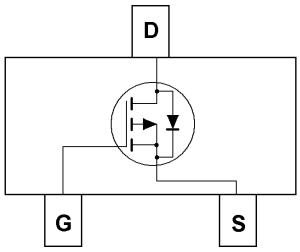
P-Channel Enhancement Mode MOSFET

Feature

- -30V/-4.2A, $R_{DS(ON)}$ =55mΩ(MAX) @V_{GS} = -10V.
  $R_{DS(ON)}$ = 70mΩ(MAX) @V_{GS} = -4.5V.
  $R_{DS(ON)}$ =120mΩ(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.

Absolute Maximum Ratings

T_A=25℃ Unless Otherwise noted

Parameter	Symbol	Limit	Units
Drain-Source Voltage	V_{DS}	-30	V
Gate-Source Voltage	V_{GS}	±12	V
Drain Current-Continuous	I_D	-4.2	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	-30	-	-	V
Zero-Gate Voltage Drain Current	IDSS	VDS=-24V, VGS=0V	-	-	-1	μA
Gate Body Leakage Current, Forward	IGSSF	VGS=12V, VDS=0V	-	-	100	nA
Gate Body Leakage Current, Reverse	IGSSR	VGS=-12V, VDS=0V	-	-	-100	nA
On Characteristics						
Gate Threshold Voltage	VGS(th)	VGS= VDS, ID=-250μA	-0.7	-	-1.3	V
Static Drain-source On-Resistance	RDS(ON)	VGS =-10V, ID =-4.2A	-	50	55	mΩ
		VGS =-4.5V, ID =-4.0A	-	60	70	mΩ
		VGS =-2.5V, ID =-1.0A	-	80	120	mΩ
Drain-Source Diode Characteristics and Maximum Ratings						
Drain-Source Diode Forward Voltage	VSD	VGS =0V, IS=-1.0A			-1.0	V

Typical Characteristics

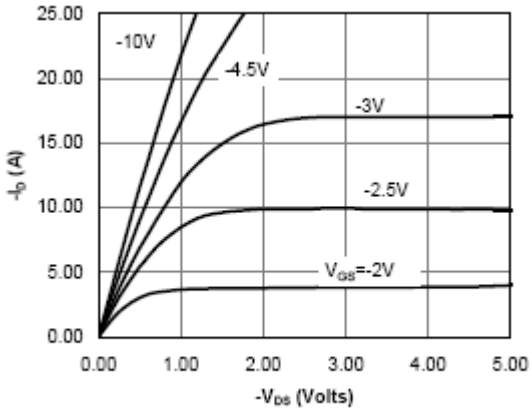


Fig 1: On-Region Characteristics

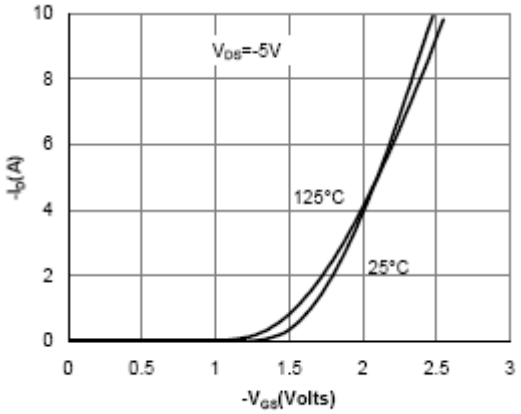


Figure 2: Transfer Characteristics

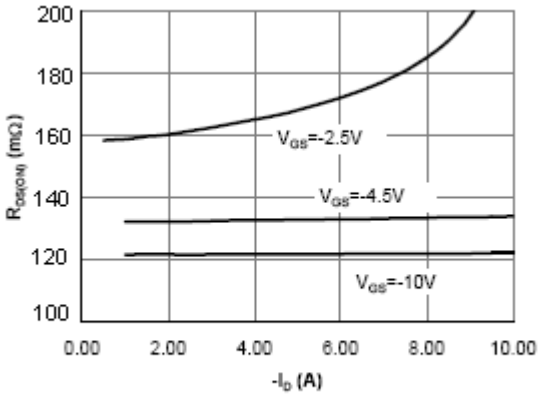


Figure 3: On-Resistance vs. Drain Current and Gate Voltage

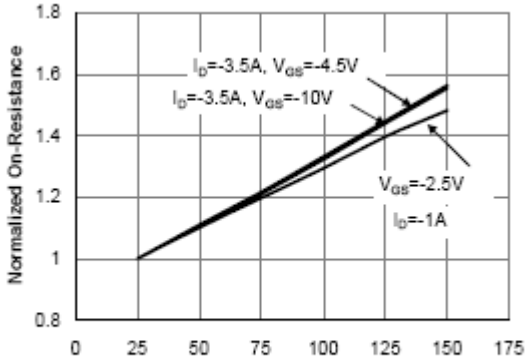


Figure 4: On-Resistance vs. Junction Temperature

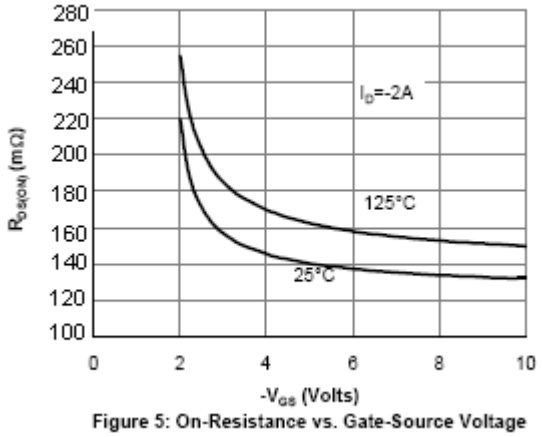


Figure 5: On-Resistance vs. Gate-Source Voltage

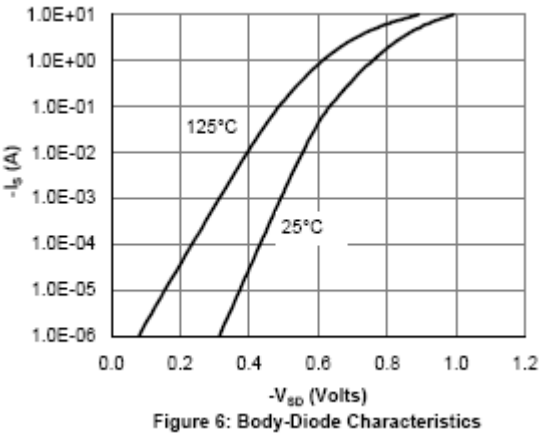
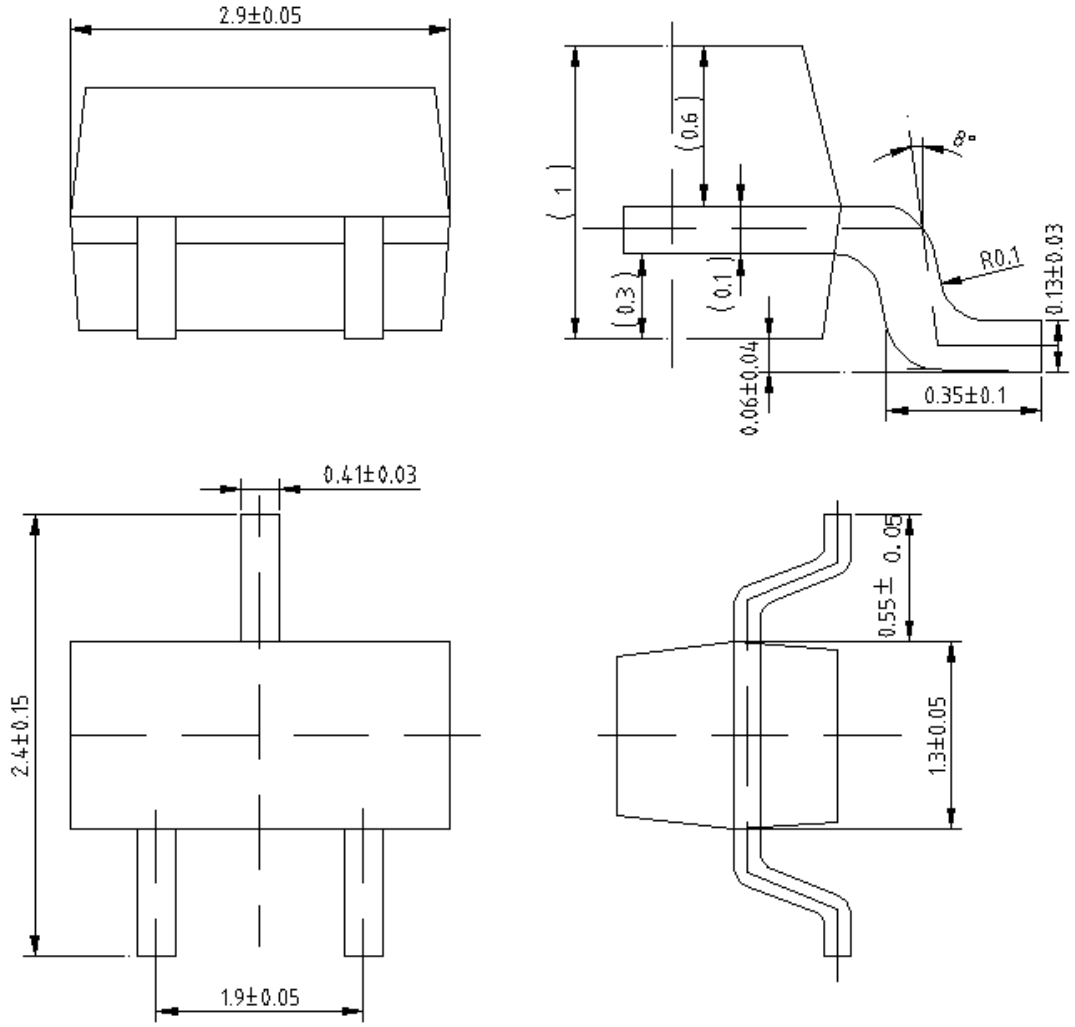


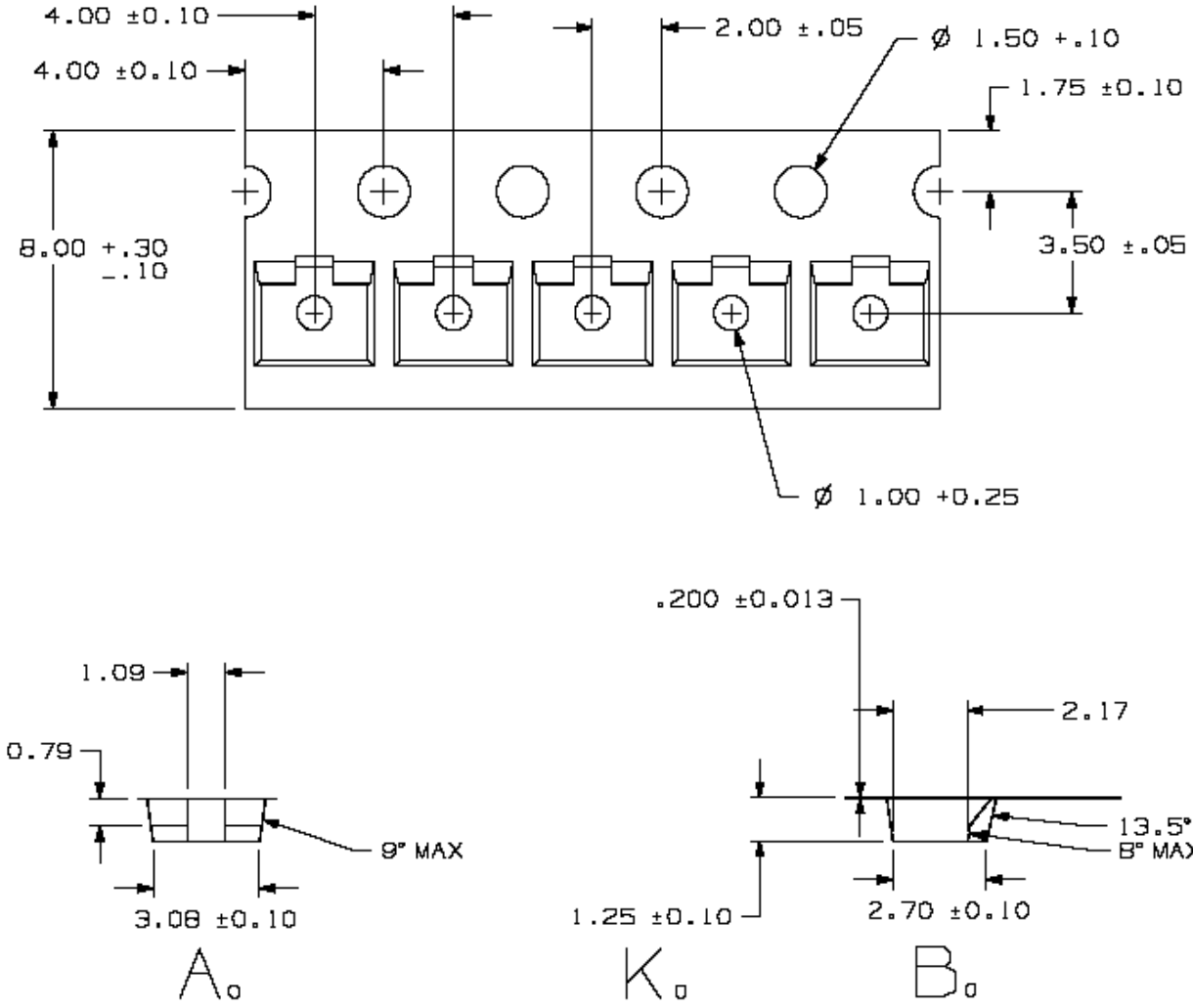
Figure 6: Body-Diode Characteristics

Package Outline Dimensions (UNIT: mm)

SOT-23



SOT-23 Carrier Tape



SOT-23 Carrier Reel