



#### P-Channel Enhancement Mode MOSFET

• -25V/-4.2A,  $RDS(ON) = 130m\Omega(MAX)$  @VGS = -10V.

 $R_{DS(ON)} = 150 m \Omega(MAX) @V_{GS} = -4.5 V.$ 

 $R_{DS(ON)} = 180 m\Omega(MAX)$  @ $V_{GS} = -2.5V$ .

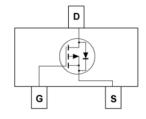
- Super High dense cell design for extremely low RDS(ON)
- Reliable and Rugged
- SC-59 for Surface Mount Package

#### **Applications**

• Power Management

Portable Equipment and Battery Powered Systems.





1: Gate 2: Source 3: Drain

#### Absolute Maximum Ratings TA=25°C Unless Otherwise noted

Parameter	Symbol	Limit	Units
Drain-Source Voltage	$V_{DS}$	-25	V
Gate-Source Voltage	$V_{GS}$	±12	V
Drain Current-Continuous	$I_D$	-4.2	A

#### Electrical Characteristics Ta=25°C Unless Otherwise noted

Parameter	Symbol	Test Conditions	Min	Тур.	Max	Units		
Off Characteristics								
Drain to Source Breakdown Voltage	BVDSS	VGS=0V, ID=-250μA	- 25	-	-	V		
Zero-Gate Voltage Drain Current	IDSS	VDS=-24V, VGS=0V	-	-	-1	μА		
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 I		VGS =-10 V, ID =-4.2A	-	-	130	mΩ		
	RDS(ON)	VGS=4.5V, ID=4.0A	-	-	150	mΩ		
		VGS =-2.5V, ID =-1.0A	-	-	180	mΩ		
Drain-Source Diode Characteristics and Maximum Ratings								
Drain-Source Diode Forward Voltage	VSD	VGS =0V, IS=-1.0A			-1.0	V		

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## Typical Characteristics

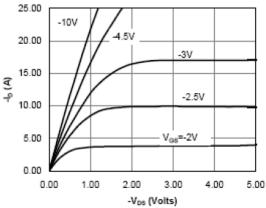


Fig 1: On-Region Characteristics

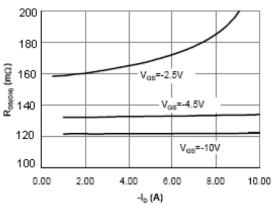
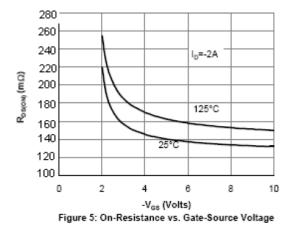


Figure 3: On-Resistance vs. Drain Current and Gate Voltage



10 8 0 0 125°C 125°C 25°C 0 0 0.5 1 1.5 2 2.5 3 -V<sub>gs</sub>(Volts)

Figure 2: Transfer Characteristics

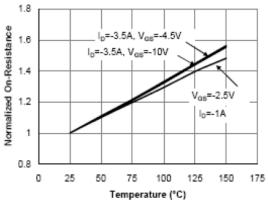


Figure 4: On-Resistance vs. Junction Temperature

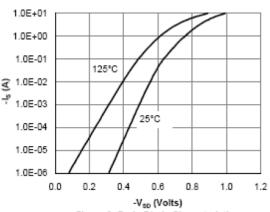
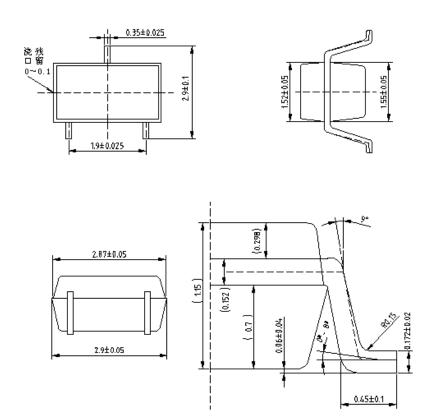


Figure 6: Body-Diode Characteristics



# Package Outline Dimensions (UNIT: mm) SC-59



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