

# P-Channel Enhancement Mode MOSFET

## RC3407A

### Feature

- 30V/-4.2A,  $R_{DS(ON)} = 55\text{m}\Omega(\text{MAX})$  @ $V_{GS} = -10\text{V}$ .
- $R_{DS(ON)} = 70\text{m}\Omega(\text{MAX})$  @ $V_{GS} = -4.5\text{V}$ .
- $R_{DS(ON)} = 120\text{m}\Omega(\text{MAX})$  @ $V_{GS} = -2.5\text{V}$ .

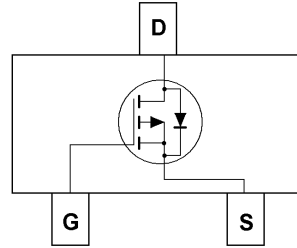
Super High dense cell design for extremely low  $R_{DS(ON)}$

Reliable and Rugged

SC-59 for Surface Mount Package



SC-59



### 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	$V_{DS}$	-30	V
Gate-Source Voltage	$V_{GS}$	$\pm 20$	V
Drain Current-Continuous	$I_D$	-4.2	A

### Electrical Characteristics

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

Parameter	Symbol	Test Conditions	Min	Typ.	Max	Units
<b>Off Characteristics</b>						
Drain to Source Breakdown Voltage	BVDSS	$V_{GS} = 0\text{V}, I_D = -250\mu\text{A}$	-30	-	-	V
Zero-Gate Voltage Drain Current	IDSS	$V_{DS} = -24\text{V}, V_{GS} = 0\text{V}$	-	-	-1	$\mu\text{A}$
Gate Body Leakage Current, Forward	IGSSF	$V_{GS} = 12\text{V}, V_{DS} = 0\text{V}$	-	-	100	nA
Gate Body Leakage Current, Reverse	IGSSR	$V_{GS} = -12\text{V}, V_{DS} = 0\text{V}$	-	-	-100	nA
<b>On Characteristics</b>						
Gate Threshold Voltage	$V_{GS(th)}$	$V_{GS} = V_{DS}, I_D = -250\mu\text{A}$	-0.7	-	-1.8	V
Static Drain-source On-Resistance	RDS(ON)	$V_{GS} = -10\text{V}, I_D = -4.2\text{A}$	-	50	55	$\text{m}\Omega$
		$V_{GS} = -4.5\text{V}, I_D = -4.0\text{A}$	-	60	70	$\text{m}\Omega$
		$V_{GS} = -2.5\text{V}, I_D = -1.0\text{A}$	-	80	120	$\text{m}\Omega$
<b>Drain-Source Diode Characteristics and Maximum Ratings</b>						
Drain-Source Diode Forward Voltage	VSD	$V_{GS} = 0\text{V}, I_S = -1.0\text{A}$			-1.0	V

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### Typical Characteristics

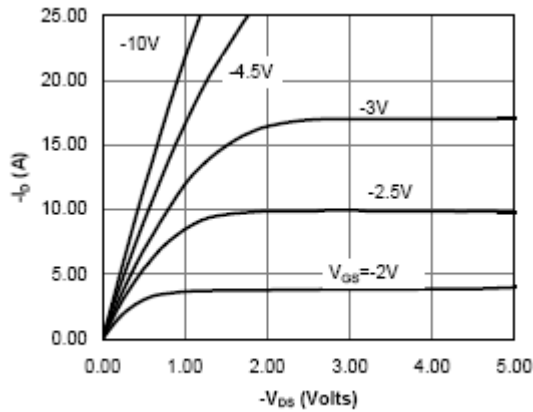


Fig 1: On-Region Characteristics

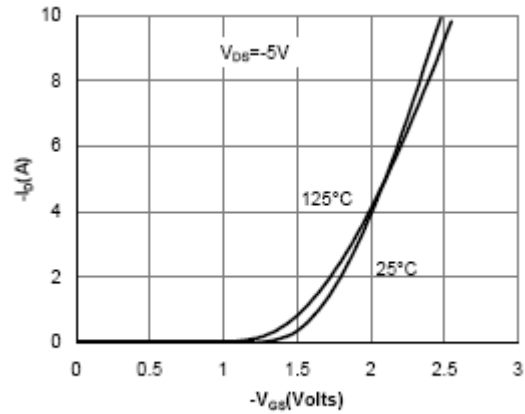


Figure 2: Transfer Characteristics

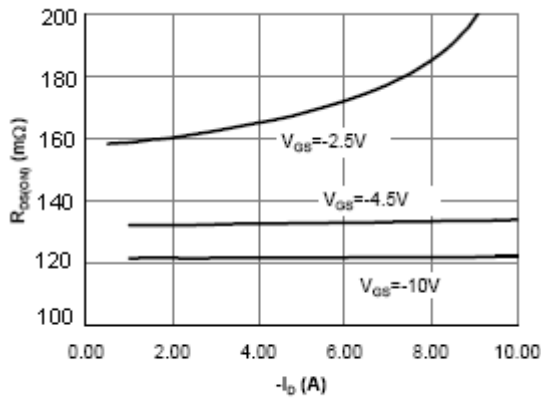


Figure 3: On-Resistance vs. Drain Current and Gate Voltage

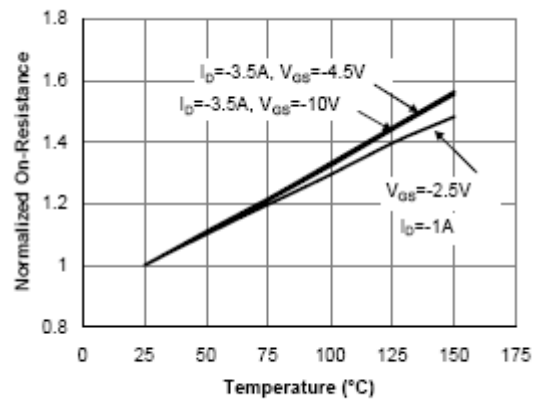


Figure 4: On-Resistance vs. Junction Temperature

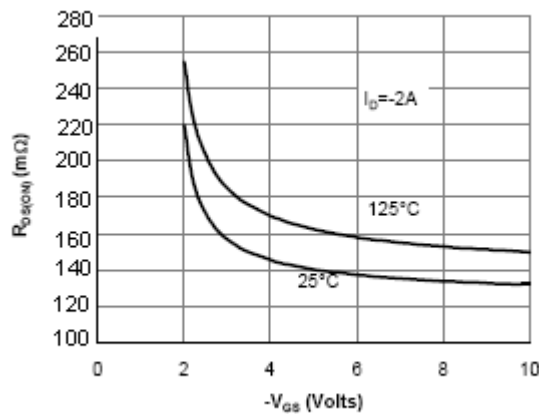


Figure 5: On-Resistance vs. Gate-Source Voltage

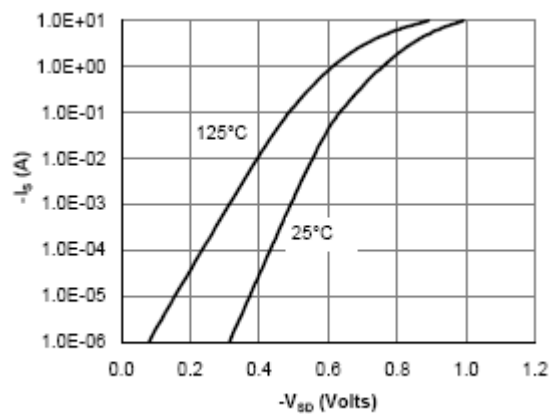


Figure 6: Body-Diode Characteristics

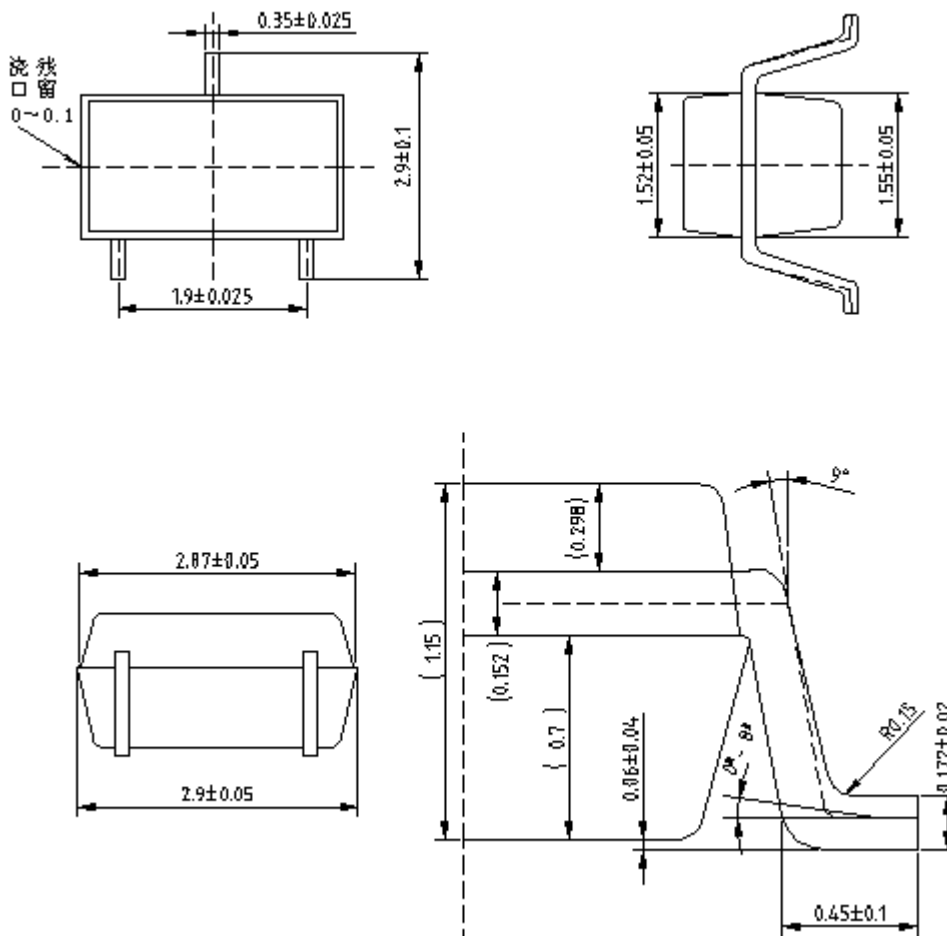
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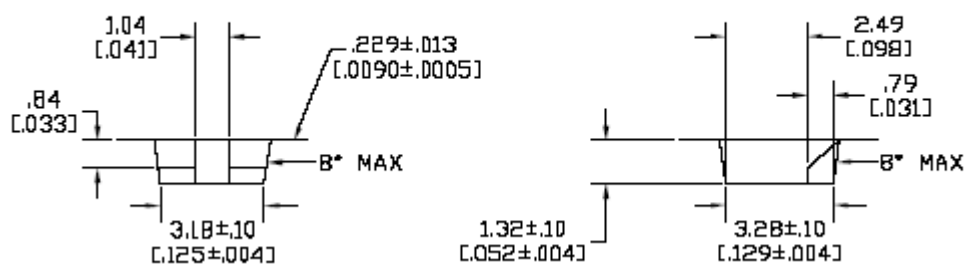
(UNIT: mm)

### Package Outline Dimensions

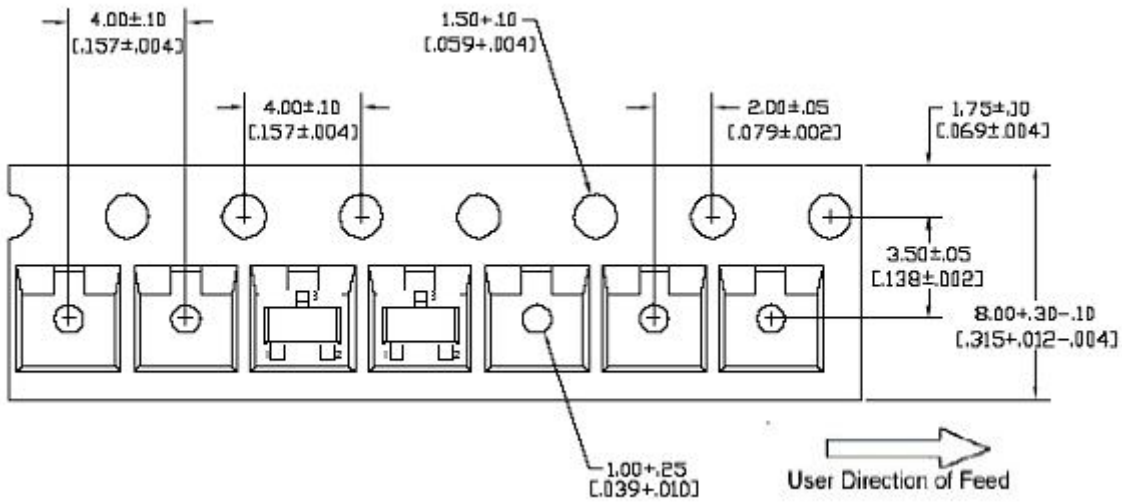
#### SC-59



#### SC-59 Carrier Tape



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### SC-59 Carrier Reel

