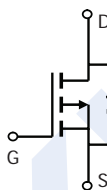
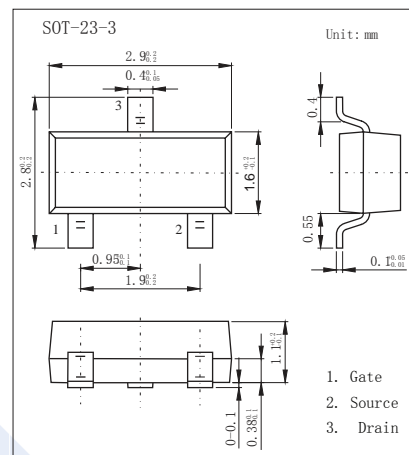


## P-Channel MOSFET

## KI2345

## ■ Features

- $V_{DS} (V) = -30V$
- $R_{DS(ON)} \leq 68m\Omega @ V_{GS} = -10V$
- $R_{DS(ON)} \leq 80m\Omega @ V_{GS} = -4.5V$
- $R_{DS(ON)} \leq 100m\Omega @ V_{GS} = -2.5V$
- Super high density cell design for extremely low  $R_{DS(ON)}$
- Exceptional on-resistance and maximum DC current capability

■ Absolute Maximum Ratings  $T_a = 25^\circ C$  Unless Otherwise Noted

Parameter	Symbol	Rating	Unit
Drain-source voltage	$V_{DS}$	-30	V
Gate-source voltage	$V_{GS}$	$\pm 12$	V
Continuous drain current	$I_D$	@ $T_a = 25^\circ C$	-4.2
		@ $T_a = 70^\circ C$	-3.5
Pulsed drain current	$I_{DM}$	-30	A
Power dissipation	$P_D$	@ $T_a = 25^\circ C$	1.4
		@ $T_a = 70^\circ C$	1.0
Single plus avalanche energy (L=0.1mH)	$E_{AS}$	40	mJ
Thermal Resistance-Junction to Case	$R_{\theta JC}$	50	$^\circ C/W$
Thermal Resistance-Junction-to-Ambient (Note 1)	$R_{\theta JA}$	90	$^\circ C/W$
Operating junction and storage temperature range	$T_j, T_{stg}$	-55 to +150	$^\circ C$

Note: 1. The device mounted on 1in2 FR4 board with 2 oz copper

## P-Channel MOSFET

## KI2345

## ■ Electrical Characteristics Ta = 25°C Unless Otherwise Specified

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Drain-source breakdown voltage	V <sub>DSS</sub>	V <sub>GS</sub> = 0 V, I <sub>D</sub> = -250 μA	-30			V
Gate threshold voltage	V <sub>GS(th)</sub>	V <sub>DS</sub> = V <sub>GS</sub> , I <sub>D</sub> = -250 μA	-0.6		-1.3	V
Zero gate voltage drain current	I <sub>DSS</sub>	V <sub>DS</sub> = -24 V, V <sub>GS</sub> = 0 V			-1	μA
Gate-body leakage	I <sub>GSS</sub>	V <sub>DS</sub> = 0 V, V <sub>GS</sub> = ±12 V			±100	nA
Drain-source on-state resistance	R <sub>DS(on)</sub>	V <sub>GS</sub> = -10 V, I <sub>D</sub> = -4.2 A			68	mΩ
		V <sub>GS</sub> = -4.5 V, I <sub>D</sub> = -4.0 A			80	
		V <sub>GS</sub> = -2.5 V, I <sub>D</sub> = -2.0 A			100	
On-state drain current (Note 2)	I <sub>D(on)</sub>	V <sub>DS</sub> = -5 V, V <sub>GS</sub> = -10 V	-30			A
Forward transconductance	g <sub>fs</sub>	V <sub>DS</sub> = -5 V, I <sub>D</sub> = -3. A	7			S
Input capacitance	C <sub>iss</sub>	V <sub>DS</sub> = -15V, V <sub>GS</sub> = 0, f = 1 MHz		710		pF
Output capacitance	C <sub>oss</sub>			70		
Reverse transfer capacitance	C <sub>rss</sub>			20		
Total gate charge	Q <sub>g</sub>			9		
Gate-source charge	Q <sub>gs</sub>	V <sub>DS</sub> = -15V, V <sub>GS</sub> = -4.5 V, I <sub>D</sub> = -4.0 A		2.3		nC
Gate-drain charge	Q <sub>gd</sub>			2		
Turn-on Delay time	t <sub>d(on)</sub>			37		
Turn-on Rise time	t <sub>r</sub>	V <sub>DS</sub> = -4V, R <sub>L</sub> = 6.0Ω, V <sub>GS</sub> = -10V, R <sub>G</sub> = 6Ω		23		ns
Turn-off Delay time	t <sub>d(off)</sub>			46		
Turn-off Fall time	t <sub>f</sub>			3		
Diode forward voltage	V <sub>SD</sub>		I <sub>S</sub> = -1.0 A, V <sub>GS</sub> = 0 V			

Note: 2. Pulse test: PW ≤ 300 μs duty cycle ≤ 2%.

## ■ Marking

Marking	A18E
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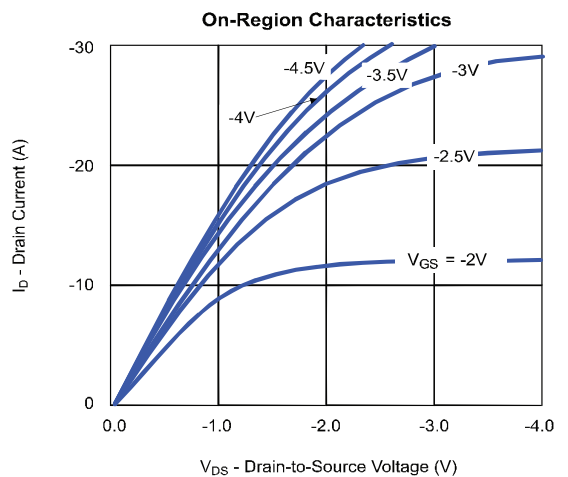
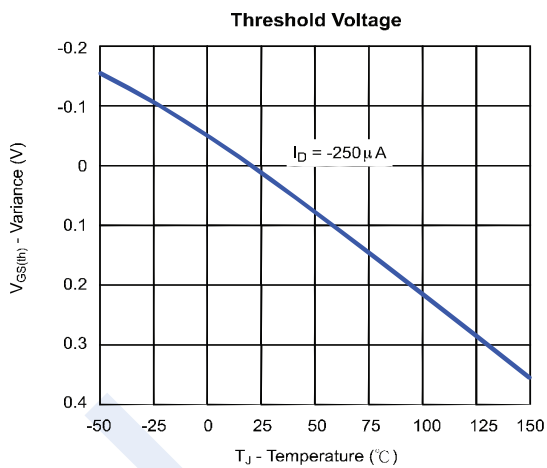
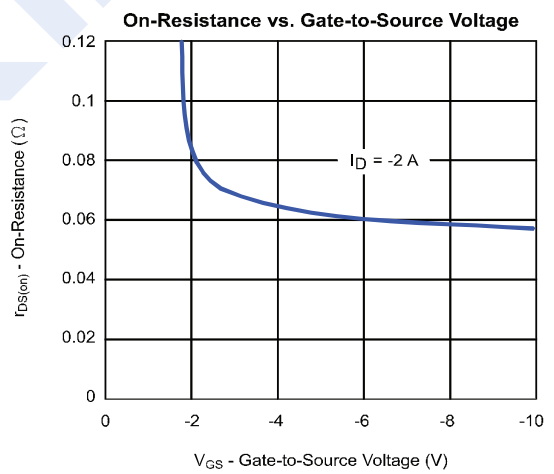
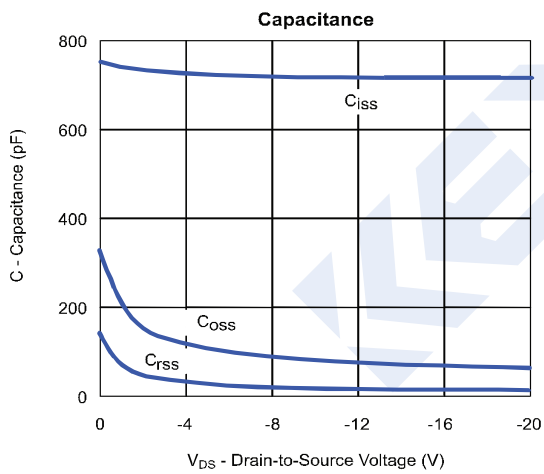
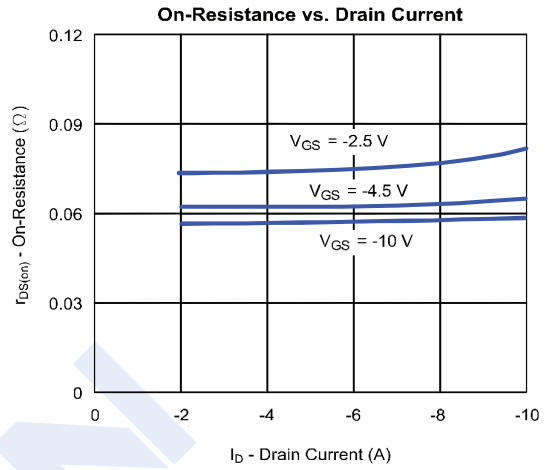
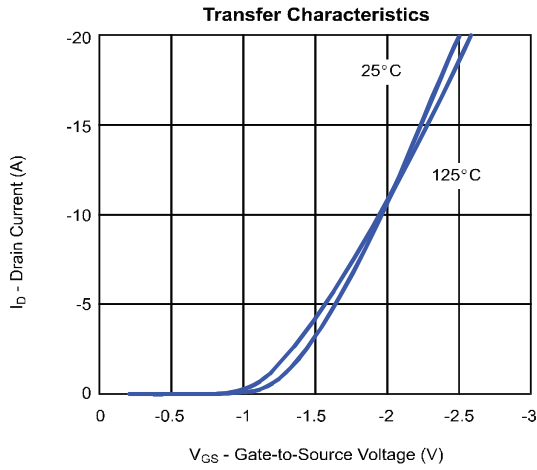
## ■ Ordering Information

Deviece	Packaging	Shipping
KI2345	SOT23-3	3000/Tape&Reel

# P-Channel MOSFET

## KI2345

### Typical Characteristics



# P-Channel MOSFET

## KI2345

