



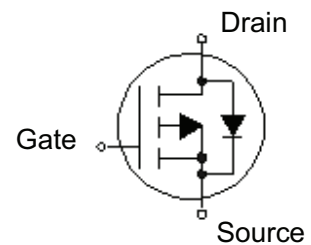
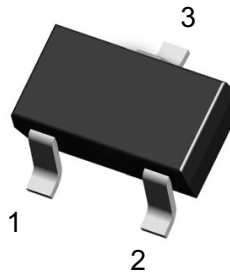
## P-Channel Enhancement-Mode MOSFET (-30V, -4.2A)

PRODUCT SUMMARY		
$V_{DS}$	$I_D$	$R_{DS(on)}$ (m-ohm) Max
-30V	-4.2A	53 @ $V_{GS} = -10V, I_D = -4.2A$
		64 @ $V_{GS} = -4.5V, I_D = -4.0A$
		86 @ $V_{GS} = -2.5V, I_D = -1.0A$

### Features

- Super high dense cell trench design for low  $R_{DS(on)}$ .
- Rugged and reliable.
- SOT-23-3L package
- Ordering information : KF3021 (Lead (Pb) -free)  
KF3021-G (Lead (Pb) -free and halogen-free)

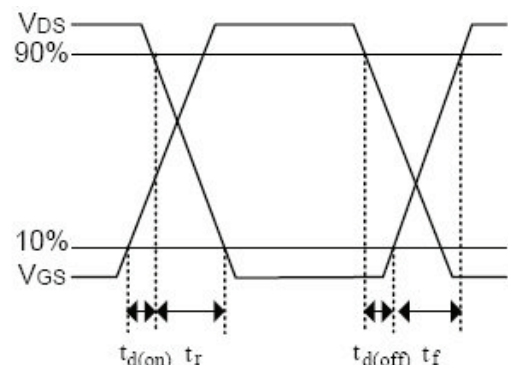
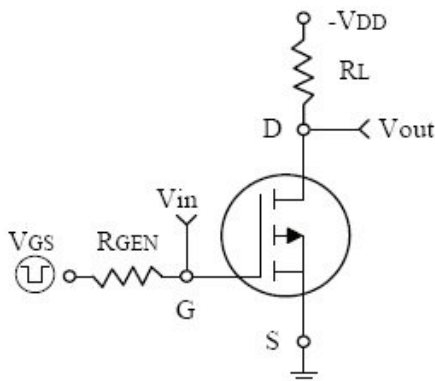
KF3021 Pin Assignment & Symbol  
3-Lead Plastic **SOT-23-3L**  
Pin 1: Gate 2: Source 3: Drain



### Absolute Maximum Ratings ( $T_A=25^\circ C$ , unless otherwise noted)

Symbol	Parameter	Ratings	Units
$V_{DS}$	Drain-Source Voltage	-30	V
$V_{GS}$	Gate-Source Voltage	$\pm 12$	V
$I_D$	Drain Current (Continuous)	-4.2	A
$I_{DM}$	Drain Current (Pulsed)	-30	A
$I_S$	Drain-Source Diode Forward Current <sup>a</sup>	-2.2	A
$P_D$	Total Power Dissipation @ $T_A=25^\circ C$	1.4	W
$T_j, T_{stg}$	Operating Junction and Storage Temperature Range	-55 to +150	$^\circ C$
$R_{\theta JA}$	Thermal Resistance Junction to Ambient	140	$^\circ C/W$

a: Surface Mounted on FR4 Board ,  $t \leq 5sec$  .



Switching Test Circuit and Switching Waveforms