

## MSK1N3 N-Channel Logic Level Enhancement Mode MOSFET

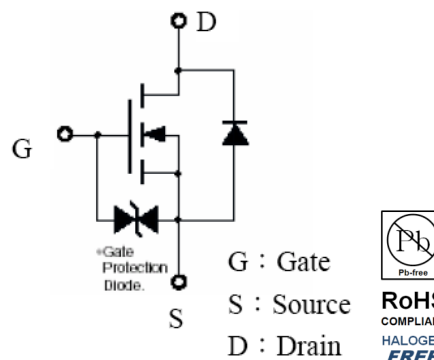
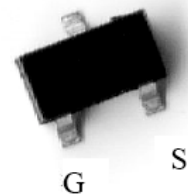
The MSK1N3 is a N-channel enhancement-mode MOSFET.

### Key Features:

- Low on-resistance
- High ESD
- High speed switching
- Low-voltage drive (4V)
- Easily designed drive circuits
- Easy to use in parallel
- Pb-free package

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### Absolute Maximum Ratings (Ta=25°C)

Parameter		Symbol	Limits	Unit
Drain-Source Voltage		V <sub>DSS</sub>	60	V
Gate-Source Voltage		V <sub>GSS</sub>	±20	V
Drain Current	Continuous	I <sub>D</sub>	115	mA
	Pulsed	I <sub>DP</sub>	700 *1	mA
Drain Reverse Current	Continuous	I <sub>DR</sub>	115	mA
	Pulsed	I <sub>DRP</sub>	700 *1	mA
Total Power Dissipation		P <sub>D</sub>	200 *2	mW
ESD susceptibility			1250 *3	V
Channel Temperature		T <sub>CH</sub>	+150	°C
Storage Temperature		T <sub>stg</sub>	-55~+150	°C

Note : \*1. Pulse Width ≤ 300μs, Duty cycle ≤ 2%

\*2. When the device is mounted on a glass epoxy board with area measuring 1×0.75×0.62 inch

\*3. Human body model, 1.5kΩ in series with 100pF

**Electrical Characteristics (Ta=25°C)**

Symbol	Min.	Typ.	Max.	Unit	Test Conditions
BV <sub>DSS</sub> *	60	-	-	V	V <sub>GS</sub> =0, I <sub>D</sub> =10μA
V <sub>GS(th)</sub>	1	-	2.5	V	V <sub>DS</sub> =V <sub>GS</sub> , I <sub>D</sub> =250μA
I <sub>GSS</sub>	-	-	±10	μA	V <sub>GS</sub> =±20V, V <sub>DS</sub> =0
I <sub>DSS</sub>	-	-	1	μA	V <sub>DS</sub> =60V, V <sub>GS</sub> =0
R <sub>DS(ON)</sub> *	-	3.6	5.5	Ω	I <sub>D</sub> =100mA, V <sub>GS</sub> =5V
	-	3	5		I <sub>D</sub> =100mA, V <sub>GS</sub> =10V
G <sub>FS</sub>	100	-	-	mS	V <sub>DS</sub> =10V, I <sub>D</sub> =100mA
C <sub>iss</sub>	-	7.32	-	pF	V <sub>DS</sub> =10V, V <sub>GS</sub> =0, f=1MHz
C <sub>oss</sub>	-	3.42	-		
C <sub>rss</sub>	-	7.63	-		
td(on)	-	1.2	-	ns	V <sub>DD</sub> =30V, I <sub>D</sub> =200mA, R <sub>GS</sub> =25 Ω, V <sub>GS</sub> =10V, R <sub>L</sub> =15 Ω
tr	-	1	-		
td(off)	-	1.1	-		
tf	-	2.2	-		

\*Pulse Test : Pulse Width ≤380μs, Duty Cycle≤2%