

## Description

The TCS1208N01 has been designed to minimize the on-state resistance ( $R_{DS(on)}$ ) and yet maintain superior switching performance, making it ideal for high efficiency power management applications.

## General Features

- ◆  $V_{DS} = 20V$ ,  $I_D = 0.8A$   
 $R_{DS(ON)}(Typ.) = 210m\Omega$  @  $V_{GS} = 4.5V$   
 $R_{DS(ON)}(Typ.) = 270m\Omega$  @  $V_{GS} = 2.5V$
- ◆ High power and current handing capability
- ◆ Lead free product is acquired
- ◆ Surface mount package

## Application

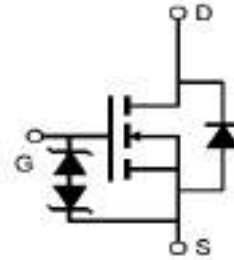
- ◆ PWM applications
- ◆ Load switch

## Package

- ◆ SOT-23

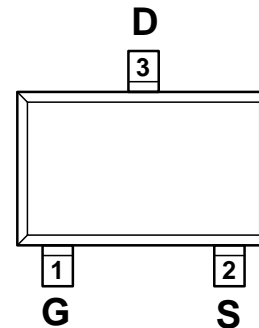


## Schematic diagram



## Marking and pin assignment

SOT-23  
(TOP VIEW)



## Ordering Information

Part Number	Storage Temperature	Package	Devices Per Reel
TCS1208N01_ C	-55°C to + 150°C	SOT23	3000

## Absolute Maximum Ratings (TA=25°C unless otherwise noted)

parameter	symbol	limit	unit
Drain-source voltage	$V_{DS}$	20	V
Gate-source voltage	$V_{GS}$	±8	V
Drain current-continuous <sup>a</sup> @ $T_j = 125^\circ C$ -pulse $d^b$	$I_D$	0.8	A
	$I_{DM}$	3.2	A
Maximum power dissipation	$T_A = 25^\circ C$ $P_D$	0.15	W
Operating junction Temperature range	$T_j$	-55—150	°C

### Notes:

- a. surface mounted on FR4 board,  $t_s \leq 10sec$
- b. pulse test: pulse width  $\leq 300\mu s$ , duty  $\leq 2\%$