

## Description

The TCS1620 uses advanced trench technology to provide excellent  $R_{DS(ON)}$  and low gate charge. It can be used in a wide variety of applications.

## General Features

- ◆  $V_{DS} = 20V$ ,  $I_D = 60A$   
 $R_{DS(ON)}(Typ.) = 4.8m\Omega$  @  $V_{GS} = 4.5V$   
 $R_{DS(ON)}(Typ.) = 6.2m\Omega$  @  $V_{GS} = 2.5V$
- ◆ High density cell design for ultra low  $R_{dson}$
- ◆ Fully characterized avalanche voltage and current
- ◆ Good stability and uniformity with high  $E_{AS}$
- ◆ Excellent package for good heat dissipation
- ◆ Special process technology for high ESD capability

## Application

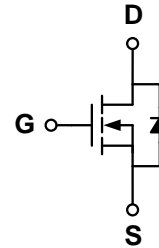
- ◆ Automotive applications
- ◆ Hard switched and high frequency circuits
- ◆ Uninterruptible power supply

## Package

- ◆ TO-252-2L



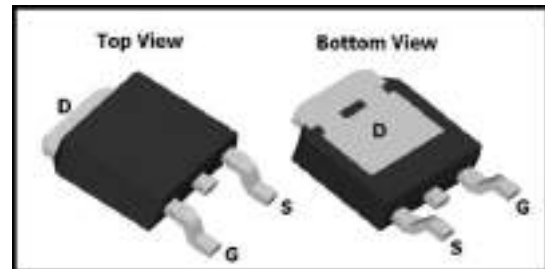
## Schematic diagram



## pin assignment

### TO-252-2L

(Top View)



XXXX—Wafer Information

YYYY—Quality Code

## Ordering Information

Part Number	Storage Temperature	Package	Devices Per Reel
TCS1620_TC	-55°C to +150°C	TO-252-2L	2500

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

parameter	symbol	limit	unit
Drain-source voltage	$V_{DS}$	20	V
Gate-source voltage	$V_{GS}$	±12	V
Continuous Drain Current	$I_D$	TC=25°C	60
		TC=100°C	42
Pulsed Drain Current	$I_{DP}$	210	A
Avalanche energy( L=0.5mH) <sup>(note1)</sup>	$E_{AS}$	200	mJ
Maximum power dissipation	$P_D$	60	W
Operating junction Temperature range	$T_j$	-55—150	°C