

Description

The TCS1002B 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

- ◆ $V_{DS} = 60V$ $I_D = 300mA$
 - $R_{DS(on)}(Typ.) = 2\Omega$ @ $V_{GS} = 10V$
 - $R_{DS(on)}(Typ.) = 2.5\Omega$ @ $V_{GS} = 4.5V$
- ◆ Low On-Resistance
- ◆ Low Input Capacitance
- ◆ Fast Switching Speed
- ◆ Low Input/Output Leakage
- ◆ Lead, Halogen and Antimony Free, RoHS Compliant "Green"
- ◆ ESD Protected Up To 2kV

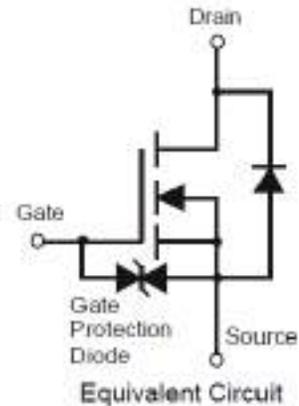
Application

- ◆ Motor control
- ◆ Power Management Functions
- ◆ Backlighting

Package

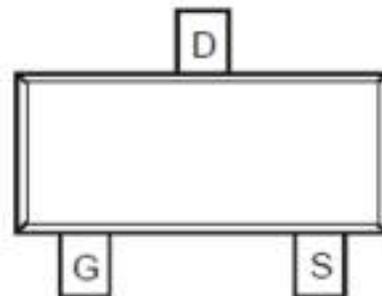
- ◆ SOT-23

Schematic diagram



Marking and pin assignment

SOT-23
(TopView)



Ordering Information

Part Number	Storage Temperature	Package	Devices Per Reel
TCS1002B-C	-55°C to +150°C	SOT-23	3000

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

parameter		symbol	limit	unit
Drain-source voltage		V_{DS}	60	V
Gate-source voltage		V_{GS}	±20	V
Continuous Drain Current	TC=25°C	I_D	380	mA
	TC=70°C		300	
Pulsed Drain Current		I_{DP}	1.2	A
Maximum power dissipation		P_D	540	mW
Operating junction Temperature range		T_j	-55—150	°C