Description

The TCS1042 uses advanced trench technology to provide excellent $R_{DS(ON)}$, This device is suitable for use as a load switch or in PWM applications.

General Features

- V_{DS} =-40V，I_D =-20A
  $R_{DS(ON)}$(Typ.)=21mΩ @V_{GS}=-10V
  $R_{DS(ON)}$(Typ.)=26mΩ @V_{GS}=-4.5V
- High power and current handing capability
- Lead free product is acquired
- Surface mount package
- 150℃ operating temperature
- 100% UIS tested

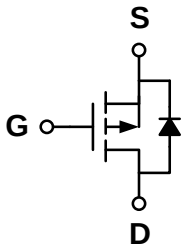
Application

- PWM applications
- Load switch
- Uninterruptible power supply

Package

- PDFN3*3-8L

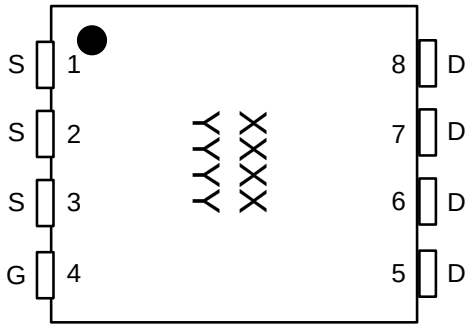
Schematic diagram



Marking and pin assignment

PDFN3×3-8L

（Top View）



XXXX—Wafer Information

YYYY—Quality Code

Ordering Information

Part Number	Storage Temperature	Package	Devices Per Reel
TCS1042_ DCH	-55℃ to +150℃	PDFN3*3-8L	5000

Absolute Maximum Ratings (TA=25℃ unless otherwise noted)

parameter		symbol	limit	unit
Drain-source voltage		V_{DS}	-40	V
Gate-source voltage		V_{GS}	±20	V
Continuous Drain Current	TC=25℃	I_D	-20	A
	TC=70℃		-16	
Pulsed Drain Current		I_{DM}	-80	A
Avalanche energy(T_j=25℃ ,V_{DD}=30V,V_G=10V,L=0.5mH,Rg=50Ω)		E_{AS}	100	mJ
Power Dissipation	TC=25℃	P_D	30	W
	TC=70℃		20	
Operating junction Temperature range		Tj	-55—150	℃