Description

The TCS1440P01 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} = -40V, I_D = -40A

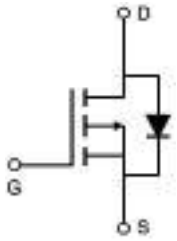
  $R_{DS(ON)}$ < 13mΩ @ V_{GS}=-10V

  $R_{DS(ON)}$ < 18mΩ @ V_{GS}=-4.5V

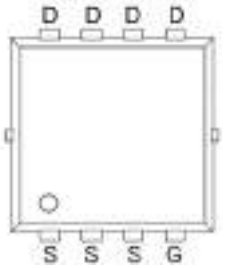
- High Power and current handing capability
- Lead free product is acquired
- Surface Mount Package

Application

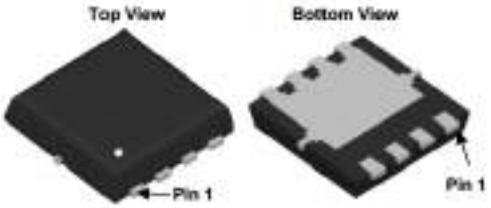
- DC-DC converter
- Load switch
- Power management



Schematic diagram



pin assignment



PDFN3.3x3.3-8L

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

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DS}	-40	V
Gate-Source Voltage	V_{GS}	±20	V
Drain Current-Continuous	I_D	-40	A
Drain Current-Continuous (TC=100℃)	I_D	-30	A
Pulsed Drain Current (Note 1)	I_{DM}	-120	A
Maximum Power Dissipation	P_D	69	W
Single Pulsed Avalanche Energy (L=0.1mH)	E_{AS}	80	mJ
Operating Junction and Storage Temperature Range	T_J, T_{STG}	-55 To 150	℃

Thermal Characteristic

Thermal Resistance, Junction-to-Case	$R_{\theta JC}$	1.8	℃/W
Thermal Resistance, Junction-to-Ambient (Note 2)	$R_{\theta JA}$	64.3	℃/W