

Description

The TCS1560 uses advanced trench technology that is uniquely optimized to provide the most efficient high frequency switching performance. Both conduction and switching power losses are minimized due to an extremely low combination of $R_{DS(ON)}$ and Q_g . This device is ideal for high-frequency switching and synchronous rectification.

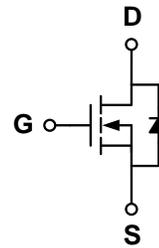
General Features

- ◆ $V_{DS} = 60V$, $I_D = 50A$
 $R_{DS(ON)}(Typ.) = 12m\Omega @ V_{GS} = 10V$
 $R_{DS(ON)}(Typ.) = 17m\Omega @ V_{GS} = 4.5V$
- ◆ Excellent gate charge x $R_{DS(on)}$ product(FOM)
- ◆ Very low on-resistance $R_{DS(on)}$
- ◆ 150 °C operating temperature
- ◆ 100% UIS tested

Application

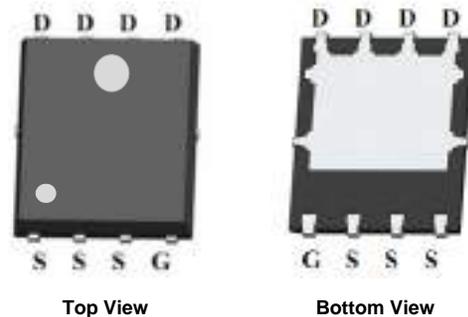
- ◆ Synchronous Rectification in DC/DC and AC/DC Converters
- ◆ Industrial and Motor Drive applications

Schematic diagram



pin assignment

PDFN5*6-8L-A



Ordering Information

Part Number	Storage Temperature	Package	Devices Per Reel
TCS1560_ DEFH	-55°C to +150°C	PDFN5*6-8L-A	5000

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	I_D	TC=25°C	50	A
		TC=70°C	35	
Pulsed Drain Current	I_{DP}	140	A	
Avalanche energy ($T_j = 25^\circ C$, $V_{DD} = 30V$, $V_G = 10V$, $L = 0.5mH$, $R_g = 25\Omega$)	E_{AS}	260	mJ	
Power Dissipation	P_D	TC=25°C	60	W
		TC=70°C	38.5	
Operating junction Temperature range	T_j	-55—150	°C	