

Description

The TCS1800 uses advanced trench technology to provide excellent $R_{DS(ON)}$ and low gate charge. The complementary MOSFETs may be used to form a level shifted high side switch, and for a host of other applications.

General Features

- ◆ $V_{DS} = 30V, I_D = 4A$
 $R_{DS(ON)} = 32m\Omega$ (typical) @ $V_{GS} = 4.5V$
 $R_{DS(ON)} = 45m\Omega$ (typical) @ $V_{GS} = 2.5V$
- ◆ Excellent gate charge x $R_{DS(ON)}$ product(FOM)
- ◆ Very low on-resistance $R_{DS(ON)}$
- ◆ 150 °C operating temperature
- ◆ Pb-free lead plating

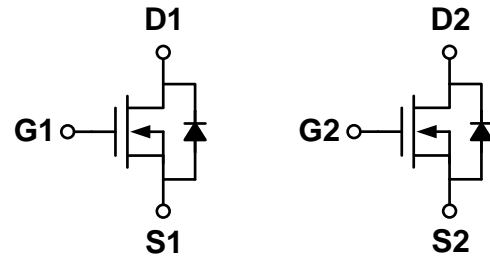
Application

- ◆ DC/DC Converter
- ◆ Ideal for high-frequency switching and synchronous rectification

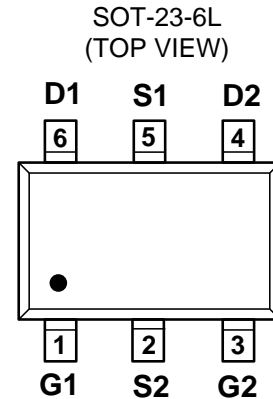
Package

- ◆ SOT-23-6L

Schematic diagram



Marking and pin assignment



Ordering Information

Part Number	Storage Temperature	Package	Devices Per Reel
TCS1800-F	-55°C to +150°C	SOT-23-6L	3000

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

parameter	symbol	limit	unit
Drain-source voltage	V_{DS}	30	V
Gate-source voltage	V_{GS}	±12	V
Continuous Drain Current	I_D	$T_A = 25^\circ C$	4
		$T_A = 70^\circ C$	3
Pulsed Drain Current ^C	I_{DM}	16	A
Maximum power dissipation ^B	P_D	$T_A = 25^\circ C$	1.4
		$T_A = 70^\circ C$	0.9