

### Description

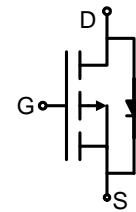
The TCS1705 uses advanced trench technology to provide excellent  $R_{DS(ON)}$ , low gate charge and operation with gate voltages as low as 2.5V. This device is suitable for use as a load switch or in PWM applications.

### General Features

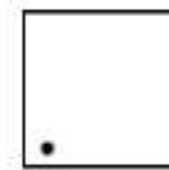
- $V_{DS} = -30V, I_D = -5.7A$ 
  - $R_{DS(ON)} < 45m\Omega @ V_{GS} = -10V$
  - $R_{DS(ON)} < 55m\Omega @ V_{GS} = -4.5V$
  - $R_{DS(ON)} < 80m\Omega @ V_{GS} = -2.5V$
- High power and current handling capability
- Lead free product is acquired
- Surface mount package

### Application

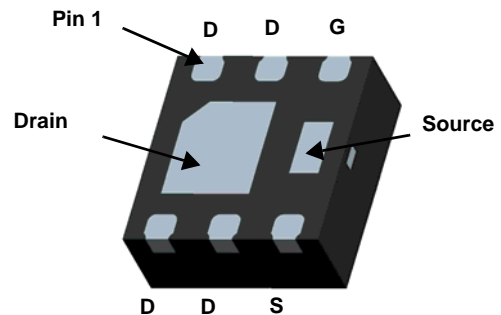
- PWM applications
- Load switch
- Power management



Schematic diagram



Pin Assignment



DFN2X2-6L bottom view

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

Parameter	Symbol	Limit	Unit
Drain-Source Voltage	$V_{DS}$	-30	V
Gate-Source Voltage	$V_{GS}$	$\pm 12$	V
Drain Current-Continuous	$I_D$	-5.7	A
Drain Current-Pulsed (Note 1)	$I_{DM}$	-31	A
Maximum Power Dissipation	$P_D$	2.8	W
Operating Junction and Storage Temperature Range	$T_J, T_{STG}$	-55 To 150	°C

### Thermal Characteristic

Thermal Resistance, Junction-to-Ambient (Note 2)	$R_{\theta JA}$	45	°C/W
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