

DESCRIPTION

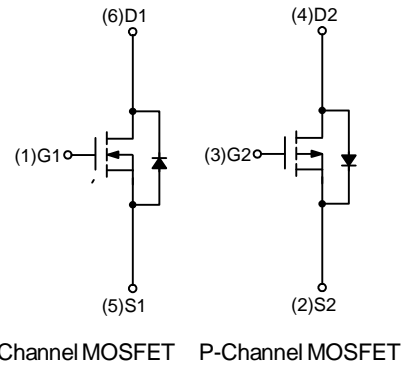
The TCS1223 uses advanced trench technology to provide excellent $R_{DS(ON)}$, low gate charge and operation with gate voltages as low as 2.5V. This device is suitable for use as a load switch or in PWM applications.

GENERAL FEATURES

- P-Channel
 - $V_{DS} = -20V, I_D = -3A$
 - $R_{DS(ON)} = 110m\Omega @ V_{GS}=-2.5V$
 - $R_{DS(ON)} = 85 m\Omega @ V_{GS}=-4.5V$
- N-Channel
 - $V_{DS} = 20V, I_D = 3A$
 - $R_{DS(ON)} = 65m\Omega @ V_{GS}=2.5V$
 - $R_{DS(ON)} = 50 m\Omega @ V_{GS}=4.5V$

Application

- PWM applications
- Load switch
- Power management



Schematic diagram



SOT-23-6L top view

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

Parameter	Symbol	N-Channel	P-Channel	Unit
Drain-Source Voltage	V_{DS}	20	-20	V
Gate-Source Voltage	V_{GS}	± 10	± 12	V
Drain Current-Continuous	I_D	3	-3	A
Drain Current -Pulsed (Note 1)	I_{DM}	10	-10	A
Maximum Power Dissipation	P_D	0.8	0.8	W
Operating Junction and Storage Temperature Range	T_J, T_{STG}	-55 To 150		°C

Thermal Characteristic

Thermal Resistance, Junction-to-Ambient (Note 2)	$R_{\theta JA}$	125	°C/W
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