

General Description

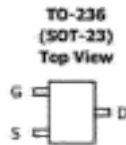
The TCS1305 uses advanced trench technology to provide excellent $R_{DS(ON)}$, low gate charge and operation with gate voltages as low as 2.5V. This device is suitable for use as a load switch or in PWM applications.

Application

- PWM application
- Load switch
- Power management

Features

- $V_{DS} = -20V, I_D = -3A$
 $R_{DS(ON)} < 140m\Omega @ V_{GS} = -2.5V$
 $R_{DS(ON)} < 110m\Omega @ V_{GS} = -4.5V$
- High power and current handling capability
- Lead free product is acquired
- Surface mount package



Package Marking and Ordering Information

Device Marking	Device	Device Package	Reel Size	Tape width	Quantity
	TCS1305-C	SOT-23	Ø180mm	8mm	3000 units

Absolute Maximum Ratings ($T_A = 25^\circ C$ unless otherwise noted)

Parameter	Symbol	Maximum	Units
Drain-Source Voltage	V_{DS}	-20	V
Gate-Source Voltage	V_{GS}	±12	V
Drain Current-Continuous	I_D	-3	A
Drain Current – Pulsed ^{Note1}	I_{DM}	-10	A
Maximum Power Dissipation	P_D	1	W
Operating Junction and Storage Temperature Range	T_J, T_{STG}	-55 To 150	°C

Thermal Characteristics

Thermal Resistance, Junction-to-Ambient ^{Note2}	$R_{\theta JA}$	125	°C/W
--	-----------------	-----	------