

Description

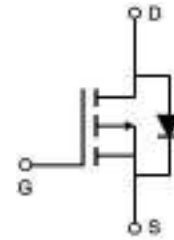
The TCS1325P01 uses advanced trench technology to provide excellent $R_{DS(ON)}$ and low gate charge. It can be used in a wide variety of applications.

General Features

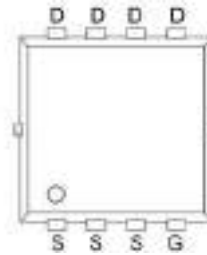
- $V_{DS} = -30V$, $I_D = -25A$
- $R_{DS(ON)} < 15m\Omega @ V_{GS}=-10V$
- $R_{DS(ON)} < 24m\Omega @ V_{GS}=-4.5V$
- High Power and current handling capability
- Lead free product is acquired
- Surface Mount Package

Application

- PWM applications
- Load switch
- Power management



Schematic diagram



Marking and pin assignment



PDFN3.3x3.3-8L

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

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DS}	-30	V
Gate-Source Voltage	V_{GS}	± 20	V
Drain Current-Continuous	I_D	-25	A
Drain Current-Continuous (TC=100°C)	I_D	-18	A
Pulsed Drain Current (Note 1)	I_{DM}	-75	A
Avalanche Current	I_{AS}	22	A
Avalanche Energy (L=0.1mH)	E_{AS}	24.2	mJ
Maximum Power Dissipation	P_D	24	W
Operating Junction and Storage Temperature Range	T_J, T_{STG}	-55 To 150	°C

Thermal Characteristic

Thermal Resistance, Junction-to-Ambient (Note 2)	$R_{\theta JC}$	5.2	°C/W
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