

Description

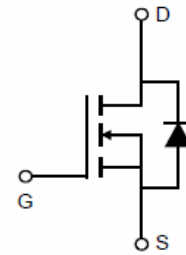
The TCS1335 uses advanced trench technology and design to provide excellent $R_{DS(ON)}$ with low gate charge. It can be used in a wide variety of applications.

General Features

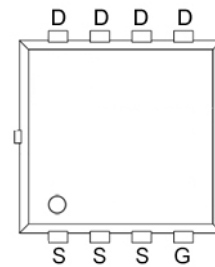
- $V_{DS} = 30V, I_D = 35A$
 $R_{DS(ON)} < 10m\Omega @ V_{GS} = 10V$
 $R_{DS(ON)} < 14m\Omega @ V_{GS} = 4.5V$
- High density cell design for ultra low R_{dson}
- Fully characterized Avalanche voltage and current
- Good stability and uniformity with high E_{AS}
- Excellent package for good heat dissipation
- Special process technology for high ESD capability

Application

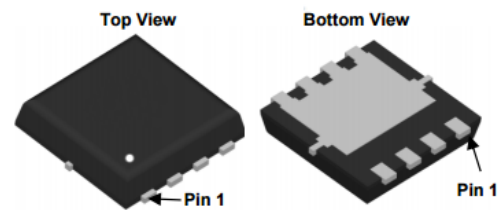
- DC/DC Converters in Computing, Servers, and POL
- Isolated DC/DC Converters in Telecom and Industrial
- Uninterruptible Power Supply



Schematic diagram



pin assignment



PDFN3.3x3.3-8L

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

Parameter	Symbol	Limit	Unit
Drain-Source Voltage	V_{DS}	30	V
Gate-Source Voltage	V_{GS}	± 20	V
Drain Current-Continuous ($T_C = 25^\circ C$)	I_D	35	A
Drain Current-Continuous ($T_A = 25^\circ C$)	I_{DSM}	11	A
Pulsed Drain Current ^(Note 1)	I_{DM}	80	A
Maximum Power Dissipation	P_D	3.1	W
Avalanche Current	I_{AS}	26	A
Single pulse avalanche energy ^(Note 5)	E_{AS}	32	mJ
Operating Junction and Storage Temperature Range	T_J, T_{STG}	-55 To 150	$^\circ C$

Thermal Characteristic

Thermal Resistance, Junction-to-Ambient ^(Note 2)	$R_{\theta JA}$	40	$^\circ C/W$
Thermal Resistance, Junction-to-Case, Steady State	$R_{\theta JC}$	4.2	$^\circ C/W$