

30V P-channel Enhancement Mode Power MOSFET

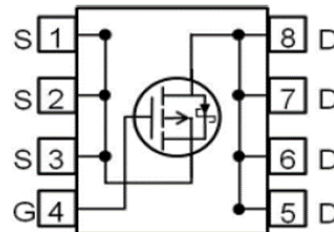
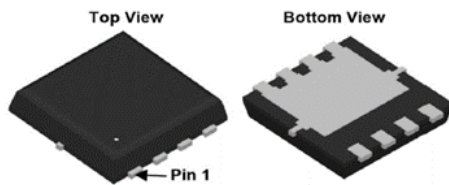
Features

- Extremely Low $R_{DS(on)}$:
Typ. $R_{DS(on)} = 15.5 \text{ m}\Omega @ V_{GS} = -10 \text{ V}, I_d = -10 \text{ A}$
- Good stability and uniformity
- 100% avalanche tested
- Excellent package for good heat dissipation

General Description

The CXT3P150Q uses advanced trench technology to provide excellent $R_{DS(ON)}$, low gate charge. This device is suitable for use Load Switch, PWM Application, Power Management and general purpose applications.

PDFN 3.3*3.3 Package



Maximum Ratings ($T_j = 25^\circ\text{C}$ unless otherwise noted)

Symbol	Parameter	Value	Units
V_{DS}	Drain-Source Voltage	-30	V
I_D	Drain Current - Continuous ($TC = 25^\circ\text{C}$)	-18	A
	Drain Current - Continuous ($TC = 100^\circ\text{C}$)	-12*	A
I_{DM}	Drain Current - Pulsed (Note 1)	-72*	A
V_{GS}	Gate-Source Voltage	± 20	V
E_{AS}	Single Pulsed Avalanche Energy (Note 2)	97	mJ
P_D	Power Dissipation ($TC = 25^\circ\text{C}$)	27	W
	- Derate above 25°C	0.31	W/ $^\circ\text{C}$
T_j, T_{stg}	Operating and Storage Temperature Range	-55 to +150	$^\circ\text{C}$

* Drain current limited by maximum junction temperature

Thermal Characteristics

Symbol	Parameter	Value	Units
$R_{\theta JC}$	Thermal Resistance, Junction-to-Case	4.543	$^\circ\text{C}/\text{W}$
$R_{\theta JA}$	Thermal Resistance, Junction-to-Ambient	58.89	$^\circ\text{C}/\text{W}$