

General Description

This MOSFET developed through advanced trench technology, is designed to minimize on-state resistance, thereby making it suitable for power management and load switching in commercial applications.

Features

- Low $R_{DS(on)}$
- Low Capacitance
- Low Gate Charge
- RoHS Compliant and Halogen-free

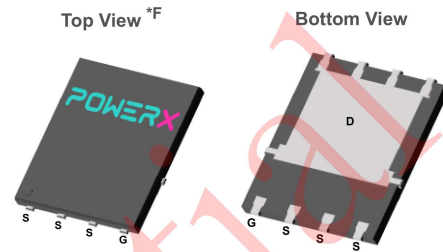
Applications

- Load Switch
- DC-DC Converters
- Synchronous Rectification
- Voltage Regulator Components

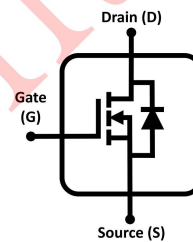
30V N-Channel MOSFET

$V_{(BR)DSS}$	$R_{DS(on)}$ MAX	I_D
30 V	8.5 mΩ@10 V	42 A
	12.3 mΩ@4.5 V	

PPAK5X6



Pin Configuration



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

Symbol	Parameter		Value	Unit
V _{DS}	Drain-Source Voltage		30	V
V _{GS}	Gate-Source Voltage		±20	
I _D	Drain Current-Continuous *A	T _A =25 °C	16	A
		T _A =70 °C	13	
		T _C =25 °C	42	
		T _C =100 °C	27	
I _{DM}	Drain Current-Pulsed *A,B	T _A =25°C	100	A
I _{AS}	Non-repetitive Avalanche Current *E		16	A
E _{AS}	Single Pulse Drain-to-Source Avalanche Energy *E		12.8	mJ
P _D	Maximum Power Dissipation	T _A =25 °C	3.6	W
		T _C =25 °C	24	
T _J , T _{STG}	Operating and Storage Temperature Range		-55 to +150	°C

Thermal Characteristics

Symbol	Parameter	Conditions	Value	Unit
$R_{\theta JA}$	Junction-to-Ambient ^{*C}	Steady State	35	$^\circ\text{C/W}$
$R_{\theta JC}$	Junction-to-Case	Steady State	5.2	$^\circ\text{C/W}$