

30V N-Channel MOSFETs

General Description

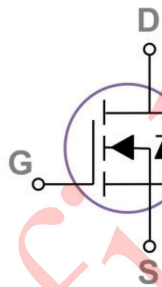
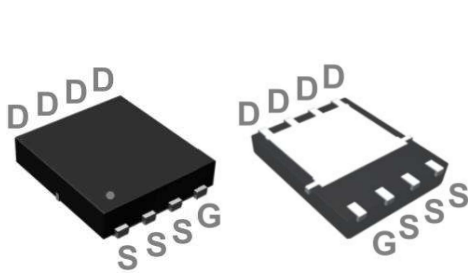
These N-Channel enhancement mode power field effect transistors are using trench DMOS technology. This advanced technology is designed to minimize on-state resistance, provide superior switching performance, and withstand high energy pulse in the avalanche period. These devices are well suited for high efficiency fast switching applications.

$V_{(BR)DSS}$	$R_{DS(ON)}$	I_D
30V	2.95m Ω	120A

Features

- Fast switching
- Improved dv/dt capability
- Green Device Available

Power PAK 5060 Pin Configuration



Applications

- Networking
- Load Switch
- LED applications

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		± 12	
I_D	Drain Current-Continuous ^A	$T_C = 25^{\circ}\text{C}$	120	A
		$T_C = 100^{\circ}\text{C}$	76	
I_{DM}	Drain Current-Pulsed ^{A,B}		480	
I_{AS}	Non-repetitive Avalanche Current ^E		53	
E_{AS}	Single Pulse Drain-to-Source Avalanche Energy ^E		140	mJ
P_D	Maximum Power Dissipation	$T_C = 25^{\circ}\text{C}$	83	W
T_J, T_{STG}	Operating and Storage Temperature Range		-55 to +150	$^{\circ}\text{C}$

Thermal Characteristics

Symbol	Parameter	Conditions	Value	Unit
$R_{\theta JA}$	Junction-to-Ambient ^C	Steady State	62	$^{\circ}\text{C/W}$
$R_{\theta JC}$	Junction-to-Case	Steady State	1.51	$^{\circ}\text{C/W}$