

30V N-Channel MOSFETs

General Description

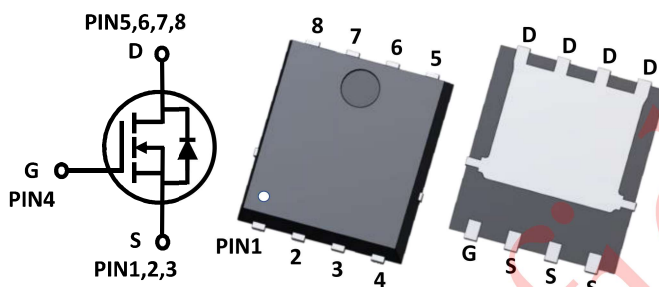
These N-Channel enhancement mode power field effect transistors are using trench - technology. This advanced technology is designed to minimize on-state resistance, provide superior switching performance, and withstand high energy pulse in the avalanche period. These devices are well suited for high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

$V_{(BR)DSS}$	$R_{DS(ON)}$	I_D
30V	3.5m Ω	98A

Features

- Advanced Trench Process
- Low- $R_{DS(ON)}$
- Low Gate Charge
- High Current Capability

Power PAK 5060 Pin Configuration



Applications

- Load Switch
- Switching Power Supplies

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	23	A
		T _A = 70°C	19	
		T _C = 25°C	98	
		T _C = 100°C	60	
I _{DM}	Drain Current-Pulsed ^{A, B}	T _A = 25°C	220	
I _{AS}	Non-repetitive Avalanche Current ^E		40	
E _{AS}	Single Pulse Drain-to-Source Avalanche Energy ^E		80	mJ
P _D	Maximum Power Dissipation	T _A = 25°C	3.6	W
		T _C = 25°C	62.5	
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	2.0	$^{\circ}\text{C/W}$