

General Description

These N-channel MOSFET are produced using advanced MagnaChip's MOSFET Technology, which provides low on-state resistance, high switching performance and excellent quality.

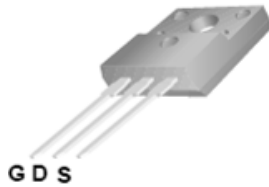
These devices are suitable device for SMPS, high Speed switching and general purpose applications.

Features

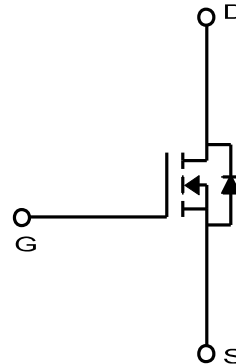
- $V_{DS} = 600V$
- $I_D = 4.6A$ @ $V_{GS} = 10V$
- $R_{DS(ON)} \leq 2.0\Omega$ @ $V_{GS} = 10V$

Applications

- Power Supply
- PFC
- High Current, High Speed Switching



TO-220F
MDF Series



Absolute Maximum Ratings (Ta = 25°C)

Characteristics		Symbol	Rating	Unit
Drain-Source Voltage		V_{DSS}	600	V
Gate-Source Voltage		V_{GSS}	±30	V
Continuous Drain Current	$T_C=25^\circ C$	I_D	4.6*	A
	$T_C=100^\circ C$		2.9*	A
Pulsed Drain Current ⁽¹⁾		I_{DM}	18.4*	A
Power Dissipation	$T_C=25^\circ C$	P_D	34.7	W
	Derate above 25 °C		0.28	W/°C
Repetitive Avalanche Energy ⁽¹⁾		E_{AR}	9.25	mJ
Peak Diode Recovery dv/dt ⁽³⁾		dv/dt	4.5	V/ns
Single Pulse Avalanche Energy ⁽⁴⁾		E_{AS}	170	mJ
Junction and Storage Temperature Range		T_J, T_{stg}	-55~150	°C

* Id limited by maximum junction temperature

Thermal Characteristics

Characteristics	Symbol	Rating	Unit
Thermal Resistance, Junction-to-Ambient ⁽¹⁾	$R_{\theta JA}$	62.5	°C/W
Thermal Resistance, Junction-to-Case ⁽¹⁾	$R_{\theta JC}$	3.6	