FAIRCHILD
SEMICONDUCTOR®

FQB8N60CF
600V N-Channel MOSFET

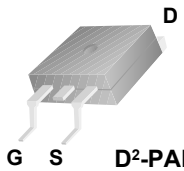
Features

- 6.26A, 600V, $R_{DS(on)}$ = 1.5 Ω @V_{GS} = 10 V
- Low gate charge (typical 28nC)
- Low Crss (typical 12pF)
- Fast switching
- 100% avalanche tested
- Improved dv/dt capability

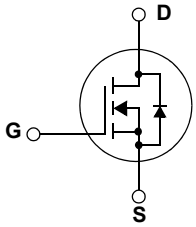
Description

These N-Channel enhancement mode power field effect transistors are produced using Fairchild's proprietary, planar stripe, DMOS technology.

This advanced technology has been especially tailored to minimize on-state resistance, provide superior switching performance, and withstand high energy pulse in the avalanche and commutation mode. These devices are well suited for high efficiency switched mode power supplies, electronic lamp ballasts based on half bridge topology.



D²-PAK
FQB Series



Absolute Maximum Ratings

Symbol	Parameter			FQB8N60CF	Units
V_{DSS}	Drain-Source Voltage			600	V
I_D	Drain Current	- Continuous (T_C = 25°C)		6.26	A
		- Continuous (T_C = 100°C)		3.96	A
I_{DM}	Drain Current	- Pulsed	(Note 1)	25	A
V_{GSS}	Gate-Source Voltage			± 30	V
E_{AS}	Single Pulsed Avalanche Energy		(Note 2)	160	mJ
I_{AR}	Avalanche Current		(Note 1)	6.26	A
E_{AR}	Repetitive Avalanche Energy		(Note 1)	14.7	mJ
dv/dt	Peak Diode Recovery dv/dt		(Note 3)	4.5	V/ns
P_D	Power Dissipation (T_C = 25°C)			147	W
		- Derate above 25°C		1.18	W/°C
T_J, T_{STG}	Operating and Storage Temperature Range			-55 to +150	°C
T_L	Maximum lead temperature for soldering purposes, 1/8				

Thermal Characteristics