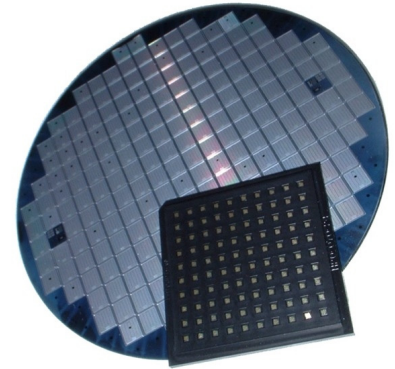


Introducing the
FCP22N60N / FCPF22N60NT
N-Channel MOSFET 600V, 22A, 0.165W
 as a bare die product from Fairchild Semiconductors



Description

The SupreMOS MOSFET, Fairchild's next generation of high voltage super-junction MOSFETs, employs a deep trench filling process that differentiates it from preceding multi-epi based technologies.

By utilizing this advanced technology and precise process control, SupreMOS provides world class R_{sp}, superior switching performance and ruggedness.

This SupreMOS MOSFET fits the industry's AC-DC SMPS requirements for PFC, server/telecom power, FPD TV power, ATX power, and industrial power applications.

Features

- R_{DS(on)} = 0.140Ω (Typ.) @ V_{GS} = 10V, I_D = 11A
- BV_{DSS} > 650V @ T_J = 150°C
- Ultra Low Gate Charge (Typ. Q_g = 45nC)
- Low Effective Output Capacitance
- 100% Avalanche Tested
- RoHS Compliant

Applications

- AC/DC Converter Drives
- Convertors Inverters
- SMPS

Electrical Characteristics

Symbol	Parameter	Test Conditions	Min.	Typ.	Max.	Units
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Off Characteristics

BV _{DSS}	Drain to Source Breakdown Voltage	I _D = 1mA, V _{GS} = 0V, T _J = 25°C	600	-	-	V
		I _D = 1mA, V _{GS} = 0V, T _J = 150°C	650	-	-	
$\frac{\Delta BV_{DSS}}{\Delta T_J}$	Breakdown Voltage Temperature Coefficient	I _D = 1mA, Referenced to 25°C	-	0.68	-	V/°C
I _{DSS}	Zero Gate Voltage Drain Current	V _{DS} = 480V, V _{GS} = 0V	-	-	10	μA
		V _{DS} = 480V, T _J = 125°C	-	-	100	
I _{GSS}	Gate to Body Leakage Current	V _{GS} = ±50V, V _{DS} = 0V	-	-	±100	nA

On Characteristics

V _{GS(th)}	Gate Threshold Voltage	V _{GS} = V _{DS} , I _D = 250μA	2.0	3	4.0	V
R _{DS(on)}	Static Drain to Source On Resistance	V _{GS} = 10V, I _D = 11A	-	0.140	0.165	Ω
g _{FS}	Forward Transconductance	V _{DS} = 20V, I _D = 11A	-	22	-	S

Note: Die electrical performances may vary depending on assembly techniques and substrate choices.

A full electrical datasheet is available from <http://www.fairchildsemi.com/ds/FC%2FFCPF22N60NT.pdf>

Micross Components EU

Unit D2 Meadowbank
 Oldham, Lancashire
 OL9 8EH England

Tel: +44 (0)161 683 5236
 Fax: +44 (0)161 684 1233

Micross Components USA

22 Just Road
 Fairfield, NJ 07004-3413
 USA

Tel: (973) 227 8007
 Fax: (973) 227 4766

Micross Components Asia

299299 Kaiyuan Road
 Jiangning, Nanjing
 China 211100

Tel: +86-25-6667 8880

