

# isc N-Channel MOSFET Transistor

# FCPF600N60Z

#### FEATURES

- · With TO-220F packaging
- · High speed switching
- · Low gate input resistance
- · Standard level gate drive
- · Easy to use
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation



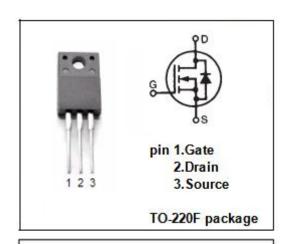
- Power supply
- · Switching applications

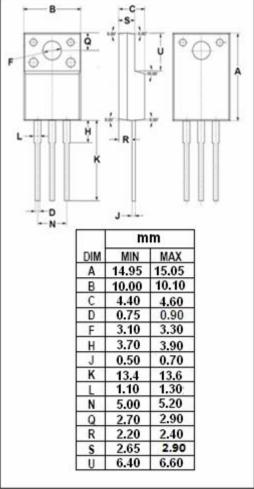
### • ABSOLUTE MAXIMUM RATINGS(Ta=25°C)

SYMBOL	PARAMETER	VALUE	UNIT
V <sub>DSS</sub>	Drain-Source Voltage	600	V
V <sub>GSS</sub>	Gate-Source Voltage	±20	V
I <sub>D</sub>	Drain Current-Continuous;@Tc=25℃	7.4	А
I <sub>DM</sub>	Drain Current-Single Pulsed	22.2	А
P <sub>D</sub>	Total Dissipation	28	W
Tj	Operating Junction Temperature -55~150		$^{\circ}$
T <sub>stg</sub>	Storage Temperature -55~15		$^{\circ}\!$

### • THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
Rth(ch-c)	Channel-to-case thermal resistance	4.5	°C/W







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#### **ELECTRICAL CHARACTERISTICS**

Tc=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	ТҮР	MAX	UNIT
BV <sub>DSS</sub>	Drain-Source Breakdown Voltage	V <sub>GS</sub> =0V; I <sub>D</sub> = 10mA	600			V
V <sub>GS(th)</sub>	Gate Threshold Voltage	V <sub>DS</sub> =V <sub>GS</sub> ; I <sub>D</sub> =250uA	2.5		3.5	V
R <sub>DS(on)</sub>	Drain-Source On-Resistance	V <sub>GS</sub> = 10V; I <sub>D</sub> = 3.7A			600	mΩ
I <sub>GSS</sub>	Gate-Source Leakage Current	V <sub>GS</sub> =±20V;V <sub>DS</sub> = 0V			±10	uA
I <sub>DSS</sub>	Drain-Source Leakage Current	V <sub>DS</sub> = 480V; V <sub>GS</sub> = 0V V <sub>DS</sub> = 480V; V <sub>GS</sub> = 0V;T <sub>J</sub> =125°C			1 10	μА
V <sub>SDF</sub>	Diode forward voltage	I <sub>SD</sub> =3.7A, V <sub>GS</sub> = 0 V			1.2	V

### **NOTICE:**

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