

isc N-Channel MOSFET Transistor

FCPF190N60E

• FEATURES

- With TO-220F packaging
- High speed switching
- Easy to use
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

• APPLICATIONS

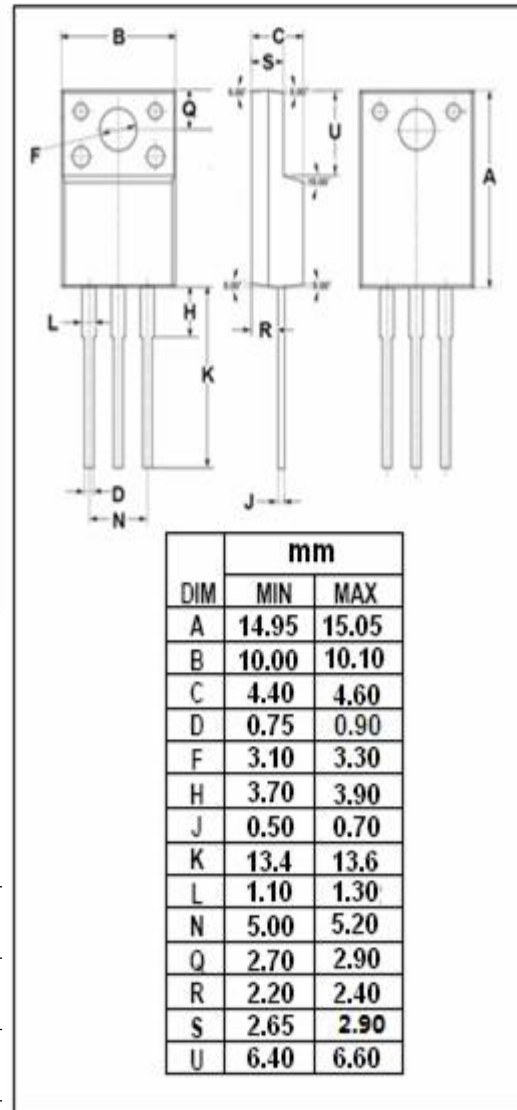
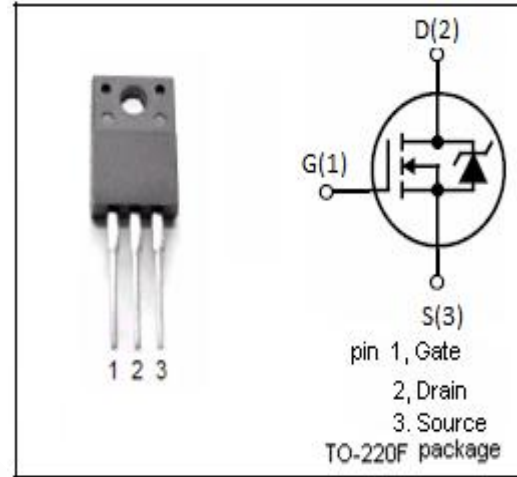
- Power supply
- DC-DC converters
- Motor control
- Switching applications

• ABSOLUTE MAXIMUM RATINGS(T_a=25°C)

SYMBOL	PARAMETER	VALUE	UNIT
V _{DSS}	Drain-Source Voltage	600	V
V _{GSS}	Gate-Source Voltage	±20	V
I _D	Drain Current-Continuous	T _c =25°C 20.6 T _c =100°C 13.1	A
I _{DM}	Drain Current-Single Pulsed	61.8	A
P _D	Total Dissipation	39	W
T _j	Operating Junction Temperature	-55~150	°C
T _{stg}	Storage Temperature	-55~150	°C

• THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
R _{th(ch-c)}	Channel-to-case thermal resistance	3.2	°C/W
R _{th(ch-a)}	Channel-to-ambient thermal resistance	62.5	°C/W



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ELECTRICAL CHARACTERISTICS

T_C=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
BV _{DSS}	Drain-Source Breakdown Voltage	V _{GS} =0V; I _D =10mA	600			V
V _{GS(th)}	Gate Threshold Voltage	V _{DS} =±20V; I _D =0.25mA	1.0		3.5	V
R _{DS(on)}	Drain-Source On-Resistance	V _{GS} = 10V; I _D =10A		0.16	0.19	Ω
I _{GSS}	Gate-Source Leakage Current	V _{GS} = ±20V; V _{DS} = 0V			±0.1	μA
I _{DSS}	Drain-Source Leakage Current	V _{DS} = 480V; V _{GS} = 0V; T _J =25°C T _J =125°C			1 10	μA
V _{SDF}	Diode forward voltage	I _{SD} =10A, V _{GS} = 0 V			1.2	V