

isc N-Channel MOSFET Transistor

FCPF7N60

FEATURES

- Drain Current : $I_D = 7A @ T_C = 25^\circ C$
- Drain Source Voltage
: $V_{DSS} = 600V(\text{Min})$
- Static Drain-Source On-Resistance
: $R_{DS(on)} = 0.6 \Omega (\text{Max}) @ V_{GS} = 10V$
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

DESCRIPTION

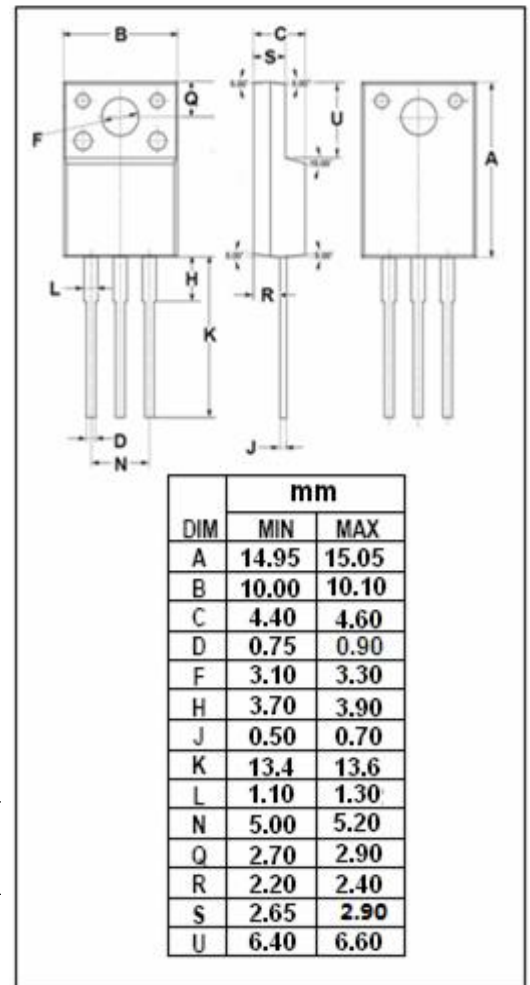
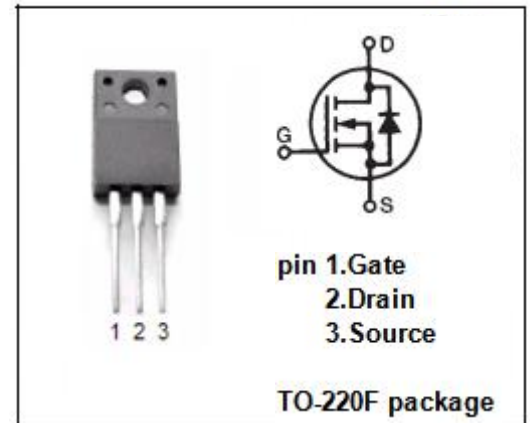
- motor drive, DC-DC converter, power switch and solenoid drive.

• ABSOLUTE MAXIMUM RATINGS($T_a = 25^\circ C$)

SYMBOL	PARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage	600	V
V_{GSS}	Gate-Source Voltage	± 30	V
I_D	Drain Current-Continuous; @ $T_C = 25^\circ C$	7	A
I_{DM}	Drain Current-Single Pulsed	21	A
P_D	Total Dissipation	31	W
T_j	Operating Junction Temperature	-55~150	$^\circ C$
T_{stg}	Storage Temperature	-55~150	$^\circ C$

• THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th(ch-c)}$	Channel-to-case thermal resistance	4.0	$^\circ C/W$



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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 = 0.25mA	600			V
V _{GS(th)}	Gate Threshold Voltage	V _{DS} =V _{GS} ; I _D = 0.25mA	3.0		5.0	V
R _{DS(on)}	Drain-Source On-Resistance	V _{GS} = 10V; I _D = 3.5A			0.6	Ω
I _{GSS}	Gate-Source Leakage Current	V _{GS} = ±30V; V _{DS} = 0V			±100	nA
I _{DSS}	Drain-Source Leakage Current	V _{DS} = 600V; V _{GS} = 0V			1	uA
V _{SD}	Diode forward voltage	I _{SD} = 7A, V _{GS} = 0 V			1.4	V

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