

## isc N-Channel MOSFET Transistor

## FCPF250N65S3

## • FEATURES

- Drain-source on-resistance:  
 $R_{DS(on)} \leq 250m\Omega @ 10V$
- Fast Switching Speed
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

## • APPLICATIONS

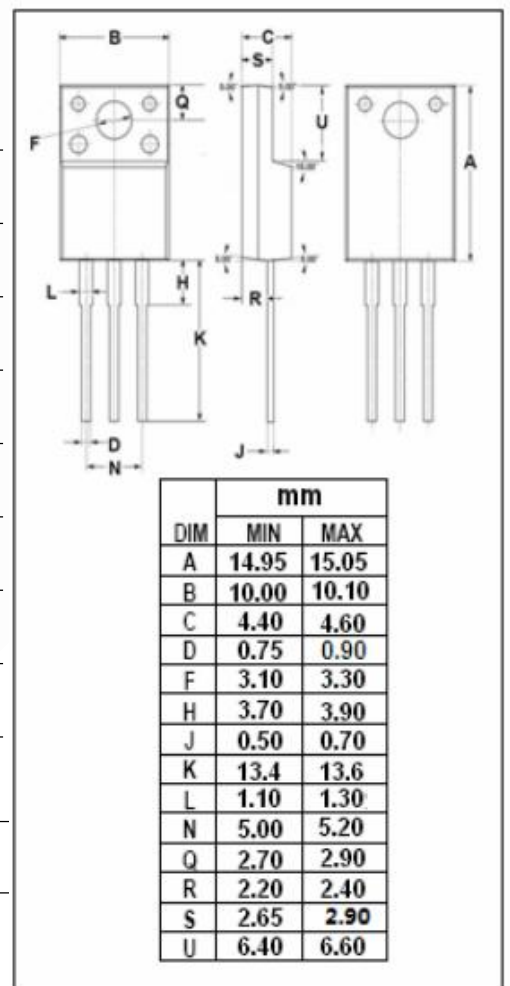
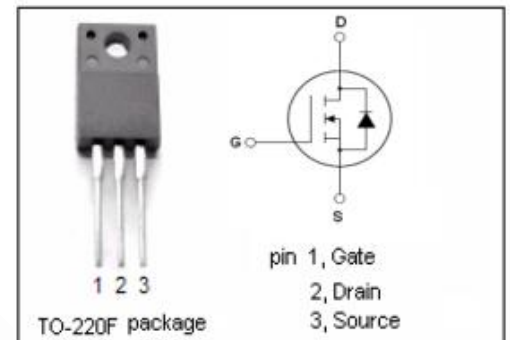
- High fast switching Power Supply

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

SYMBOL	PARAMETER	VALUE	UNIT
$V_{DS}$	Drain-Source Voltage	650	V
$V_{GS}$	Gate-Source Voltage	$\pm 30$	V
$I_D$	Drain Current-Continuous	12	A
$I_{DM}$	Drain Current-Single Pulsed	30	A
$P_D$	Total Dissipation @ $T_c=25^\circ C$	31	W
$T_j$	Max. Operating Junction Temperature	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	4.03	$^\circ C/W$



**isc N-Channel MOSFET Transistor****FCPF250N65S3****ELECTRICAL CHARACTERISTICS** $T_c=25^{\circ}\text{C}$  unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
$BV_{DS}$	Drain-Source Breakdown Voltage	$V_{GS}=0V$ ; $I_D=250\mu A$	650			V
$V_{GS(th)}$	Gate Threshold Voltage	$V_{DS}=V_{GS}$ ; $I_D=250\mu A$	2.5		4.5	V
$R_{DS(on)}$	Drain-Source On-Resistance	$V_{GS}=10V$ ; $I_D=6A$			250	$m\Omega$
$I_{GSS}$	Gate-Source Leakage Current	$V_{GS}=\pm 30V$ ; $V_{DS}=0V$			$\pm 100$	nA
$I_{DSS}$	Drain-Source Leakage Current	$V_{DS}=650V$ ; $V_{GS}=0V$			1	$\mu A$
$V_{SD}$	Diode forward on voltage	$I_{SD}=6A$ , $V_{GS}=0V$			1.2	V

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