

## isc N-Channel MOSFET Transistor

## FCP067N65S3

### • FEATURES

- With TO-220 packaging
- High speed switching
- Very high commutation ruggedness
- Easy to use
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operationz

### • APPLICATIONS

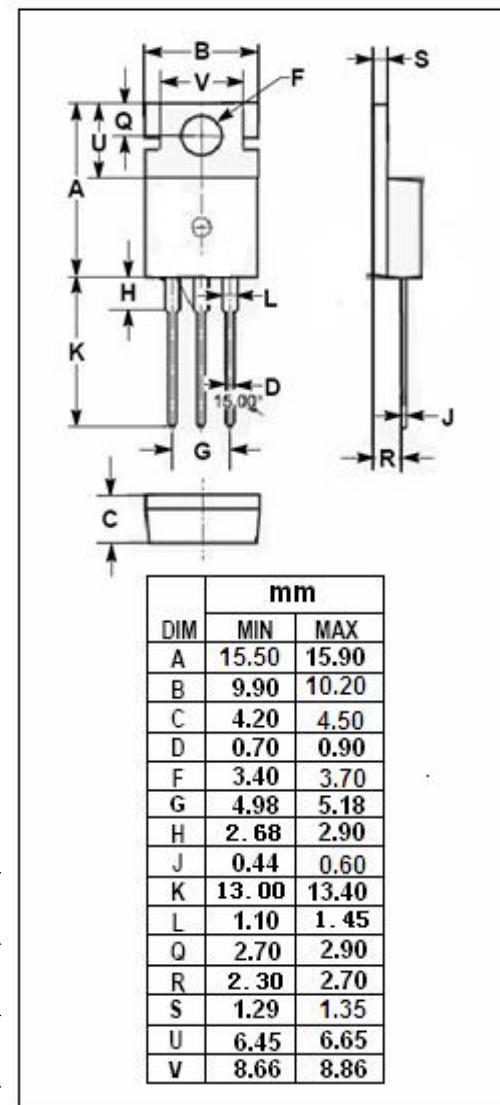
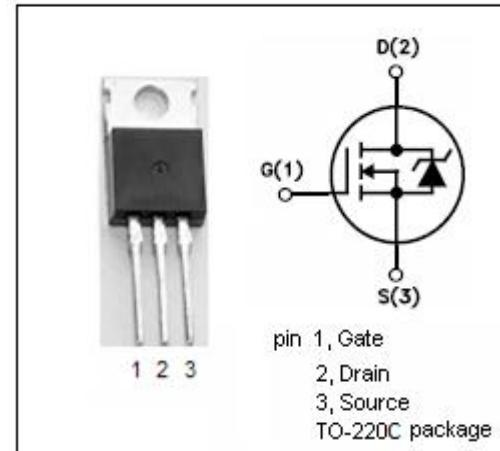
- PFC stages
- UPS
- Power supply
- Switching applications

### • ABSOLUTE MAXIMUM RATINGS( $T_a=25^\circ\text{C}$ )

SYMBOL	PARAMETER	VALUE	UNIT
$V_{DSS}$	Drain-Source Voltage	650	V
$V_{GSS}$	Gate-Source Voltage	$\pm 30$	V
$I_D$	Drain Current-Continuous@ $T_c=25^\circ\text{C}$ $T_c=100^\circ\text{C}$	44 28	A
$I_{DM}$	Drain Current-Single Pulsed	110	A
$P_D$	Total Dissipation	312	W
$T_j$	Operating Junction Temperature	-55~150	$^\circ\text{C}$
$T_{stg}$	Storage Temperature	-55~150	$^\circ\text{C}$

### • THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th(ch-c)}$	Channel-to-case thermal resistance	0.4	$^\circ\text{C}/\text{W}$
$R_{th(ch-a)}$	Channel-to-ambient thermal resistance	62.5	$^\circ\text{C}/\text{W}$



**ELECTRICAL CHARACTERISTICS** $T_c=25^\circ\text{C}$  unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
$\text{BV}_{\text{DSS}}$	Drain-Source Breakdown Voltage	$\text{V}_{\text{GS}}=0\text{V}; \text{I}_{\text{D}}=1\text{mA}$	650			V
$\text{V}_{\text{GS(th)}}$	Gate Threshold Voltage	$\text{V}_{\text{DS}}=\text{V}_{\text{GS}}; \text{I}_{\text{D}}=4.4\text{mA}$	2.5		4.5	V
$\text{R}_{\text{DS(on)}}$	Drain-Source On-Resistance	$\text{V}_{\text{GS}}= 10\text{V}; \text{I}_{\text{D}}=22\text{A}$		59	67	$\text{m}\Omega$
$\text{I}_{\text{GSS}}$	Gate-Source Leakage Current	$\text{V}_{\text{GS}}= \pm 30\text{V}; \text{V}_{\text{DS}}= 0\text{V}$			$\pm 0.1$	$\mu\text{A}$
$\text{I}_{\text{DSS}}$	Drain-Source Leakage Current	$\text{V}_{\text{DS}}= 650\text{V}; \text{V}_{\text{GS}}= 0\text{V}$			1	$\mu\text{A}$
$\text{V}_{\text{SDF}}$	Diode forward voltage	$\text{I}_{\text{SD}}=22\text{A}, \text{V}_{\text{GS}} = 0 \text{ V}$			1.2	V

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