

# isc N-Channel MOSFET Transistor

# NDFP03N150C

**• FEATURES**

- High breakdown voltage
- Fast Switching Speed
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

**• APPLICATIONS**

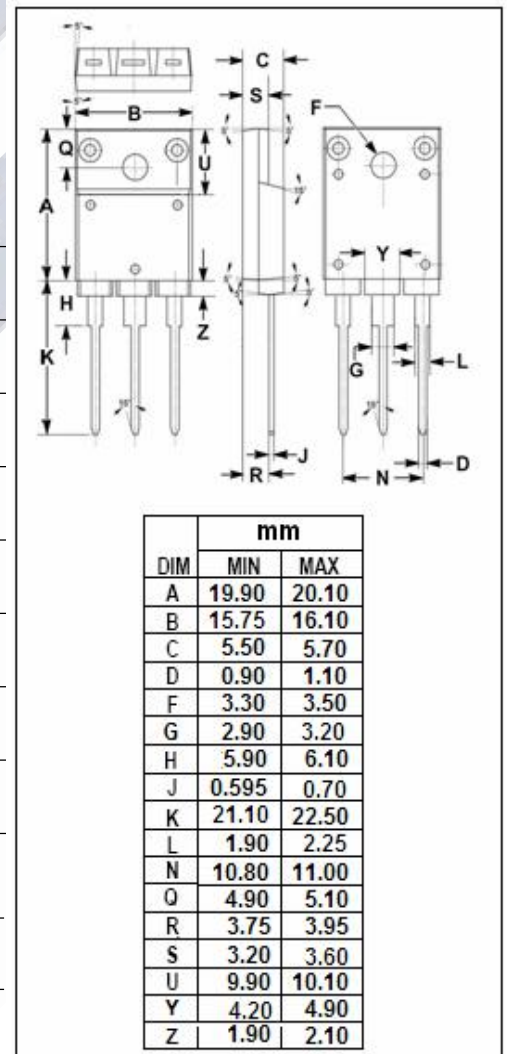
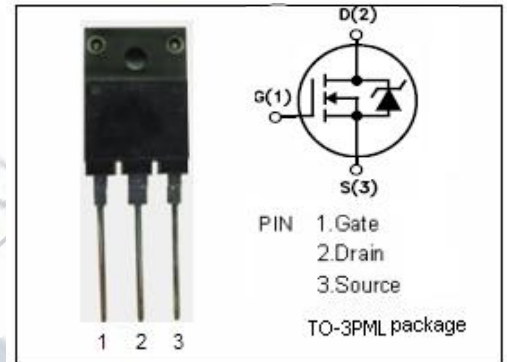
- High speed power switching
- Switching regulator, DC-DC converter

**• ABSOLUTE MAXIMUM RATINGS(T<sub>a</sub>=25°C)**

SYMBOL	PARAMETER	VALUE	UNIT
V <sub>DSS</sub>	Drain-Source Voltage	1500	V
V <sub>GS</sub>	Gate-Source Voltage	±30	V
I <sub>D</sub>	Drain Current-Continuous	2.5	A
I <sub>DM</sub>	Drain Current-Single Pulsed	5	A
P <sub>D</sub>	Total Dissipation @T <sub>c</sub> =25°C	50	W
T <sub>j</sub>	Max. Operating Junction Temperature	150	°C
T <sub>stg</sub>	Storage Temperature	-55~150	°C

**• THERMAL CHARACTERISTICS**

SYMBOL	PARAMETER	MAX	UNIT
R <sub>th(ch-c)</sub>	Channel-to-case thermal resistance	2.5	°C/W



**isc N-Channel MOSFET Transistor****NDFP03N150C****ELECTRICAL CHARACTERISTICS** $T_c=25^{\circ}\text{C}$  unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
$BV_{DSS}$	Drain-Source Breakdown Voltage	$V_{GS}=0V; I_D=10mA$	1500			V
$V_{GS(th)}$	Gate Threshold Voltage	$V_{DS}=V_{GS}; I_D=1mA$	3		5	V
$R_{DS(on)}$	Drain-Source On-Resistance	$V_{GS}=15V^{NOTE}; I_D=1A$			10	$\Omega$
$I_{GSS}$	Gate-Source Leakage Current	$V_{GS}=\pm 30V; V_{DS}=0V$			$\pm 100$	nA
$I_{DSS}$	Drain-Source Leakage Current	$V_{DS}=1200V; V_{GS}=0V$			1	mA
$V_{SD}$	Diode forward voltage	$I_S=2A; V_{GS}=0V$			1.5	V

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