

**isc N-Channel MOSFET Transistor**
**ISH3N150**
**• FEATURES**

- Drain Current  $-I_D = 3A @ T_C = 25^\circ C$
- Drain Source Voltage-  $V_{DSS}: 1500V(\text{Min})$
- Static Drain-Source On-Resistance  $R_{DS(\text{on})}: <7.5 \Omega (\text{Max})$
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

**• APPLICATIONS**

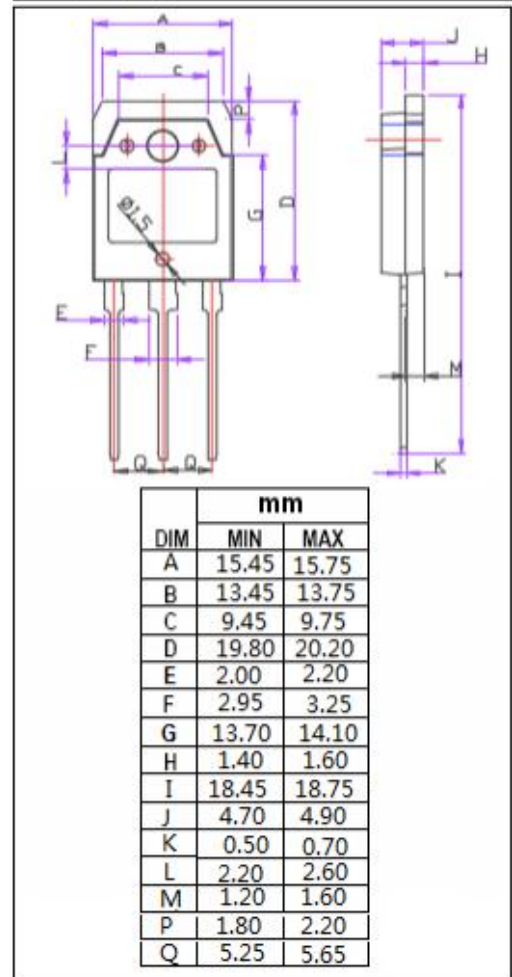
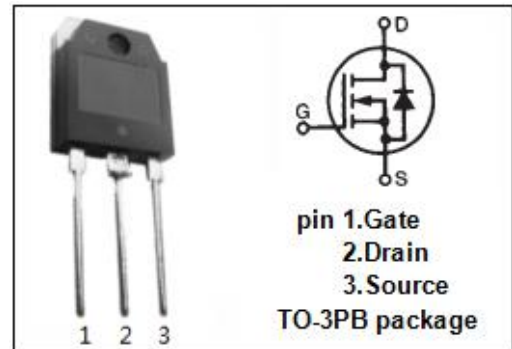
- High speed power switching
- Switching regulator, DC-DC converter

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

SYMBOL	PARAMETER	VALUE	UNIT
$V_{DSS}$	Drain-Source Voltage	1500	V
$V_{GS}$	Gate-Source Voltage	$\pm 30$	V
$I_D$	Drain Current-Continuous	4	A
$I_{DM}$	Drain Current-Single Pulsed	9	A
$P_D$	Total Dissipation @ $T_C = 25^\circ C$	250	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	0.5	$^\circ C/W$



## isc N-Channel MOSFET Transistor

## ISH3N150

## ELECTRICAL CHARACTERISTICS

T<sub>c</sub>=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
BV <sub>DSS</sub>	Drain-Source Breakdown Voltage	V <sub>GS</sub> =0V; I <sub>D</sub> =10mA	1500			V
V <sub>GS(th)</sub>	Gate Threshold Voltage	V <sub>DS</sub> =V <sub>GS</sub> ; I <sub>D</sub> =1mA	2		5	V
R <sub>DS(on)</sub>	Drain-Source On-Resistance	V <sub>GS</sub> =10V; I <sub>D</sub> =1.5A			7.5	Ω
I <sub>GSS</sub>	Gate-Source Leakage Current	V <sub>GS</sub> = ±30V; V <sub>DS</sub> =0V			±0.1	μ A
I <sub>DSS</sub>	Drain-Source Leakage Current	V <sub>DS</sub> =1500V; V <sub>GS</sub> = 0V			1	μ A
V <sub>SD</sub>	Diode forward voltage	I <sub>F</sub> =3A; V <sub>GS</sub> = 0V			1.3	V

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