

isc N-Channel MOSFET Transistor

STW4N150

FEATURES

- Drain Current I_D : 4.0A@ $T_C=25^\circ\text{C}$
- Drain Source Voltage-
: $V_{DS}=1500\text{V}(\text{Min})$
- Static Drain-Source On-Resistance
: $R_{DS(on)} = 7.0\ \Omega (\text{Max})$
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

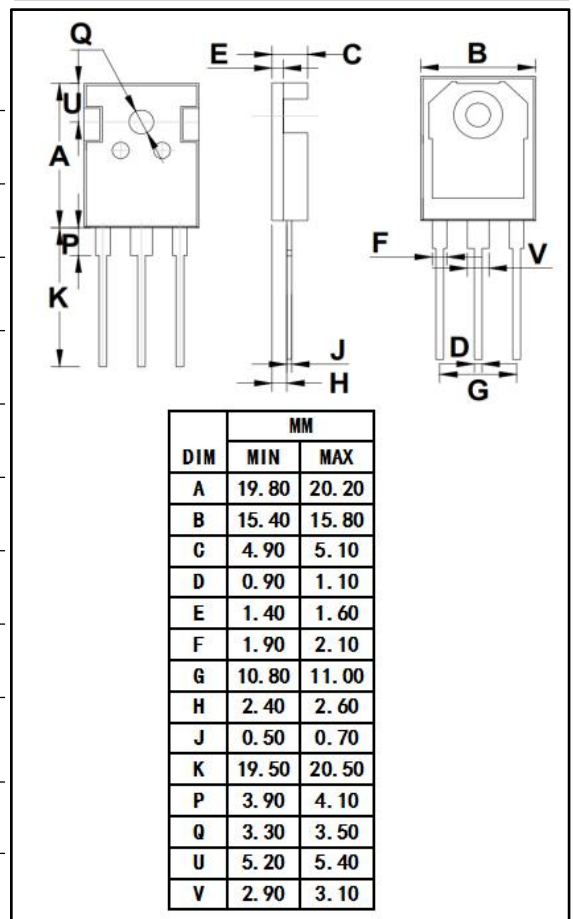
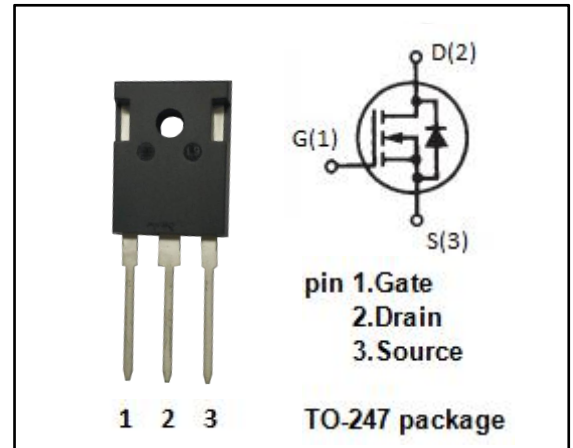
- High speed power switching
- Switching regulator, DC-DC converter

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{DS}	Drain-Source Voltage	1500	V
V_{GS}	Gate-Source Voltage	± 30	V
I_D	Drain Current-Continuous	4.0	A
I_{DM}	Drain Current-Single Pulsed	12	A
P_D	Total Dissipation @ $T_C=25^\circ\text{C}$	160	W
T_j	Max. Operating Junction Temperature	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	0.78	$^\circ\text{C/W}$



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ELECTRICAL CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
BV_{DSS}	Drain-Source Breakdown Voltage	$V_{GS}=0V$; $I_D=1.0mA$	1500		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	$V_{GS}=10V$; $I_D=2A$		7.0	Ω
I_{GSS}	Gate-Source Leakage Current	$V_{GS}=\pm 30V$; $V_{DS}=0V$		± 0.1	μA
I_{DSS}	Drain-Source Leakage Current	$V_{DS}=1500V$; $V_{GS}=0V$		10	μA
V_{SD}	Diode forward voltage	$I_F=4.0A$; $V_{GS}=0V$		2.0	V

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