

N-Channel MOSFET Transistor

23N50

FEATURES

- Drain Current $-I_D = 23A @ T_C = 25^\circ C$
- Drain Source Voltage-
: $V_{DSS} = 500V (Min)$
- Static Drain-Source On-Resistance
: $R_{DS(on)} = 0.245 \Omega (Max)$
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

DESCRIPTION

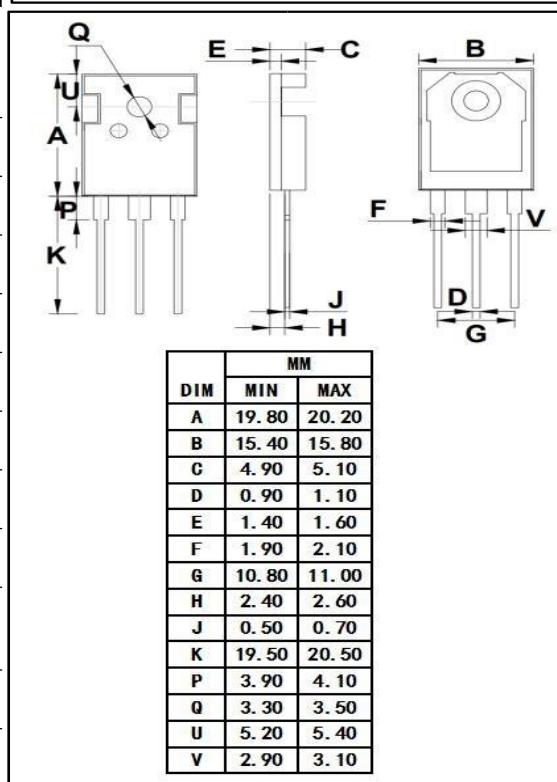
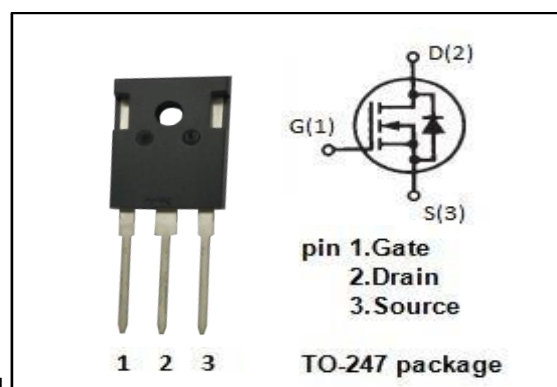
- Designed for use in switch mode power supplies and general purpose applications.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage	500	V
V_{GS}	Gate-Source Voltage-Continuous	± 30	V
I_D	Drain Current-Continuous	23	A
I_{DM}	Drain Current-Single Pulse	92	A
P_n	Total Dissipation @ $T_c = 25^\circ C$	315	W
T_J	Max. Operating Junction Temperature	-55~150	$^\circ C$
T_{stg}	Storage Temperature	-55~150	$^\circ C$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th(j-c)}$	Thermal Resistance, Junction to Case	0.40	$^\circ C/W$



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ELECTRICAL CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
$V_{(BR)DSS}$	Drain-Source Breakdown Voltage	$V_{GS} = 0; I_D = 0.25\text{mA}$	500		V
$V_{GS(th)}$	Gate Threshold Voltage	$V_{DS} = V_{GS}; I_D = 2.5\text{mA}$	2.5	3.5	V
$R_{DS(on)}$	Drain-Source On-Resistance	$V_{GS} = 10\text{V}; I_D = 11.5\text{A}$		0.245	Ω
I_{GSS}	Gate-Body Leakage Current	$V_{GS} = \pm 30\text{V}; V_{DS} = 0$		± 100	nA
I_{DSS}	Zero Gate Voltage Drain Current	$V_{DS} = 500\text{V}; V_{GS} = 0$ $V_{DS} = 400\text{V}; V_{GS} = 0 @ T_c = 125^{\circ}\text{C}$		25 250	μA
V_{SD}	Forward On-Voltage	$I_S = -23\text{A}; V_{GS} = 0$		1.35	V

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