

isc N-Channel MOSFET Transistor

45N06

• FEATURES

- Drain Current $I_D = 45A @ T_C = 25^\circ C$
- Drain Source Voltage-
: $V_{DSS} = 60V(\text{Min})$
- Static Drain-Source On-Resistance
: $R_{DS(on)} = 0.04 \Omega (\text{Max})$
- Fast Switching
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

• APPLICATIONS

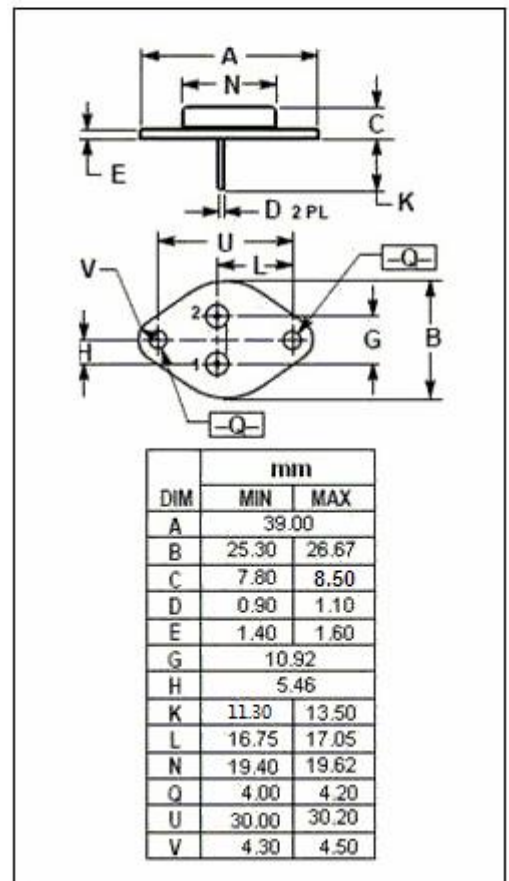
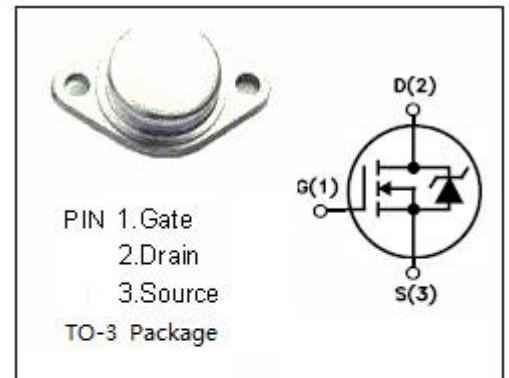
- Switching power supplies, converters, AC and DC motor controls

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage	60	V
V_{GS}	Gate-Source Voltage-Continuous	± 30	V
I_D	Drain Current-Continuous	45	A
I_{DM}	Drain Current-Single Plused	100	A
P_D	Total Dissipation @ $T_C = 25^\circ C$	150	W
T_j	Max. Operating Junction Temperature	150	$^\circ C$
T_{stg}	Storage Temperature	-55~150	$^\circ C$

• THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th j-c}$	Thermal Resistance, Junction to Case	0.63	$^\circ C/W$
$R_{th j-a}$	Thermal Resistance, Junction to Ambient	62.5	$^\circ C/W$



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• ELECTRICAL CHARACTERISTICS

T_c=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYPE	MAX	UNIT
V _{(BR)DSS}	Drain-Source Breakdown Voltage	V _{GS} = 0; I _D =1mA	60			V
V _{GS(th)}	Gate Threshold Voltage	V _{DS} = V _{GS} ; I _D =1mA	2.0		4.0	V
V _{SD}	Diode Forward On-voltage	I _S = 22.5A ;V _{GS} = 0			1.4	V
R _{DS(on)}	Drain-Source On-Resistance	V _{GS} = 10V; I _D = 22.5A			0.04	Ω
I _{GSS}	Gate-Body Leakage Current	V _{GS} = ±20V;V _{DS} = 0			±100	nA
I _{DSS}	Zero Gate Voltage Drain Current	V _{DS} =50V; V _{GS} = 0			1	μA
C _{iss}	Input Capacitance	V _{DS} =25V;			3000	pF
C _{rss}	Reverse Transfer capacitance	V _{GS} =0V;			750	
C _{oss}	Output Capacitance	f _r =1MHz			1800	

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