

isc N-Channel MOSFET Transistor

NTD4969NT4G

FEATURES

- Drain Current $-I_D=41A@ T_C=25^{\circ}C$
- Drain Source Voltage-
: $V_{DSS}=30V(\text{Min})$
- Static Drain-Source On-Resistance
: $R_{DS(on)} = 11m\Omega (\text{Max})$
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

DESCRIPTION

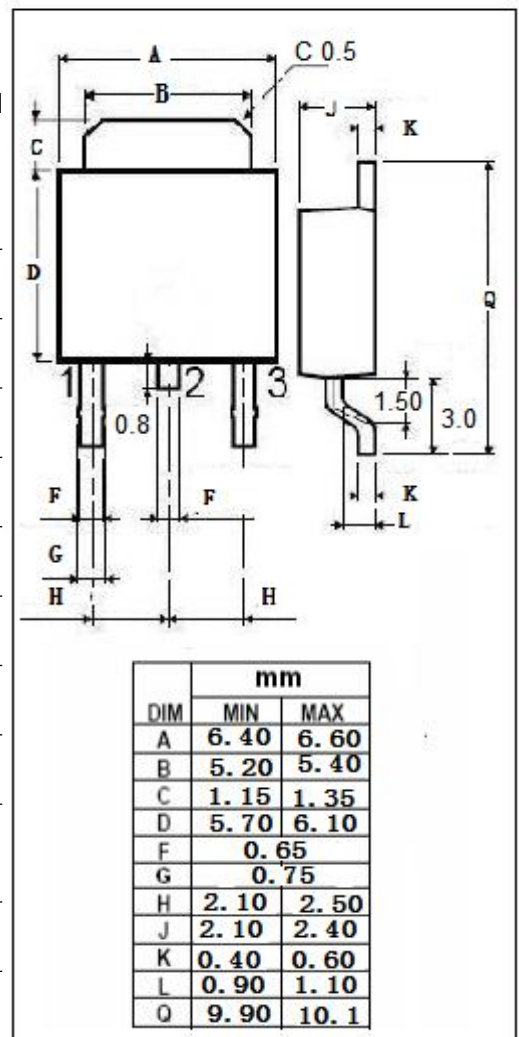
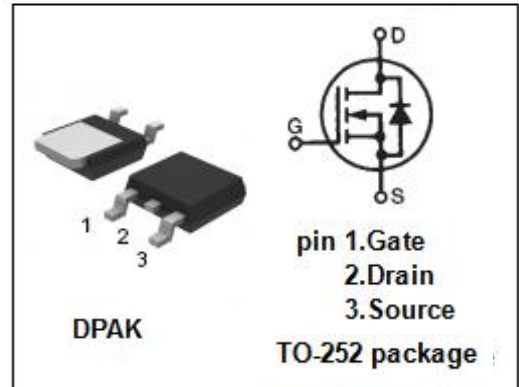
- Designed for use in switch mode power supplies and general purpose applications.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage	30	V
V_{GS}	Gate-Source Voltage-Continuous	± 20	V
I_D	Drain Current-Continuous@ $T_C=25^{\circ}C$ @ $T_C=100^{\circ}C$	41 29	A
I_{DM}	Drain Current-Single Pluse	150	A
P_D	Total Dissipation @ $T_C=25^{\circ}C$	26.3	W
T_J	Max. Operating Junction Temperature	-55~175	$^{\circ}C$
T_{stg}	Storage Temperature	-55~175	$^{\circ}C$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th j-c}$	Thermal Resistance, Junction to Case	5.7	$^{\circ}C/W$



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ELECTRICAL CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
$V_{(BR)DSS}$	Drain-Source Breakdown Voltage	$V_{GS}=0$; $I_D=0.25\text{mA}$	30	33		V
$V_{GS(th)}$	Gate Threshold Voltage	$V_{DS}=V_{GS}$; $I_D=0.25\text{mA}$	1	1.6	2.5	V
$R_{DS(on)}$	Drain-Source On-Resistance	$V_{GS}=10\text{V}$; $I_D=20\text{A}$		8	11	$\text{m}\Omega$
I_{GSS}	Gate-Body Leakage Current	$V_{GS}=\pm 20\text{V}$; $V_{DS}=0$			± 100	nA
I_{DSS}	Zero Gate Voltage Drain Current	$V_{DS}=24\text{V}$; $V_{GS}=0$ $V_{DS}=24\text{V}$; $V_{GS}=0$ @ $T_J=125^{\circ}\text{C}$			1 10	μA
g_{FS}	Forward Transconductance	$V_{DS}=5\text{V}$, $I_D=20\text{A}$		20		S
V_{SD}	Forward On-Voltage	$I_S=20\text{A}$; $V_{GS}=0$		0.85	1.2	V
C_{iss}	Input Capacitance	$V_{DS}=15\text{V}$; $V_{GS}=0\text{V}$; $f_r=1.0\text{MHz}$		2000		pF
C_{oss}	Output Capacitance			280		
C_{rss}	Reverse Transfer capacitance			210		
$Q_{G(TOT)}$	Total Gate Charge	$V_{GS}=4.5\text{V}$; $V_{DS}=15\text{V}$; $I_D=30\text{A}$		10		nC
$Q_{G(TH)}$	Threshold Gate Charge			8		
Q_{GS}	Gate-to-Source Charge			25		
Q_{GD}	Gate-to-Drain Charge			5		

NOTICE:

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