

isc N-Channel MOSFET Transistor

NTHL040N65S3F

• FEATURES

- With TO-247 packaging
- Low $R_{DS(on)}$ <40m Ω
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

• APPLICATIONS

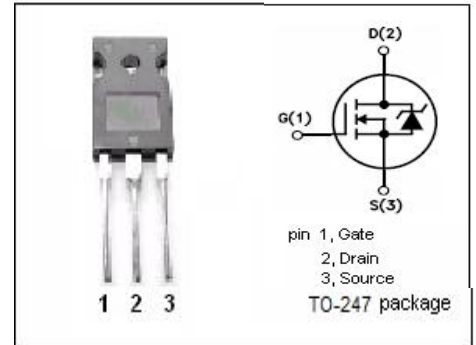
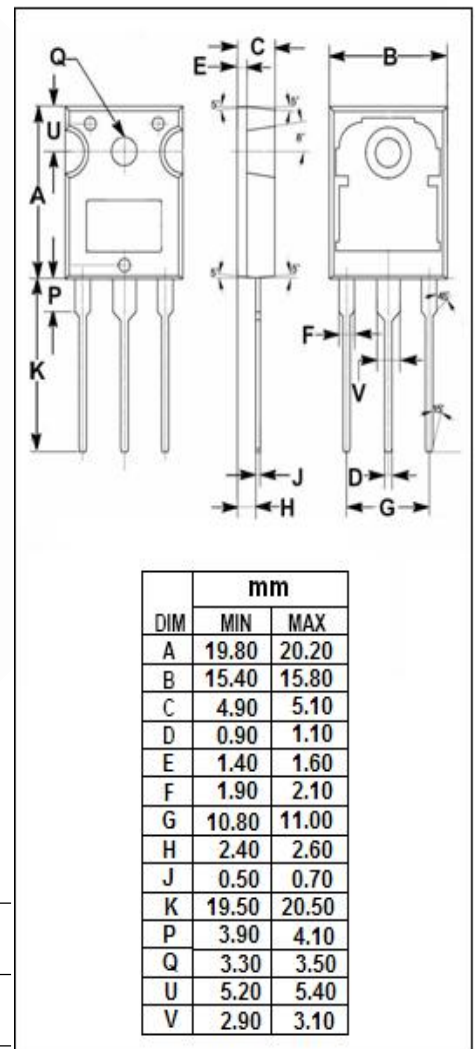
- Telecom / Server Power Supplies
- Industrial Power Supplies

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{DS}	Drain-Source Voltage	650	V
V_{GS}	Gate-Source Voltage	± 30	V
I_D	Drain Current-Continuous@ $T_c=25^{\circ}\text{C}$	65	A
I_{DM}	Drain Current-Single Pulsed	162	A
P_D	Total Dissipation	446	W
T_j	Operating Junction Temperature	-55~150	$^{\circ}\text{C}$
T_{stg}	Storage Temperature	-55~150	$^{\circ}\text{C}$

• THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th(ch-c)}$	Channel-to-case thermal resistance	0.28	$^{\circ}\text{C/W}$



isc N-Channel MOSFET Transistor**NTHL040N65S3F****ELECTRICAL CHARACTERISTICS** $T_c=25^{\circ}\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
BV_{DSS}	Drain-Source Breakdown Voltage	$V_{GS}=0V; I_D=1mA$	650			V
$V_{GS(th)}$	Gate Threshold Voltage	$V_{DS}=V_{GS}; I_D=6.5mA$	3		5	V
$R_{DS(on)}$	Drain-Source On-Resistance	$V_{GS}=10V; I_D=32.5A$			40	$m\Omega$
I_{GSS}	Gate-Source Leakage Current	$V_{GS}=\pm 30V; V_{DS}=0V$			± 100	nA
I_{DSS}	Drain-Source Leakage Current	$V_{DS}=650V; V_{GS}=0V$			10	μA
V_{SDF}	Diode forward voltage	$I_{SD}=32.5A, V_{GS}=0V$			1.3	V