

isc N-Channel MOSFET Transistor

IXTH52N65X

• FEATURES

- With low gate drive requirements
- Easy to drive
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

• APPLICATIONS

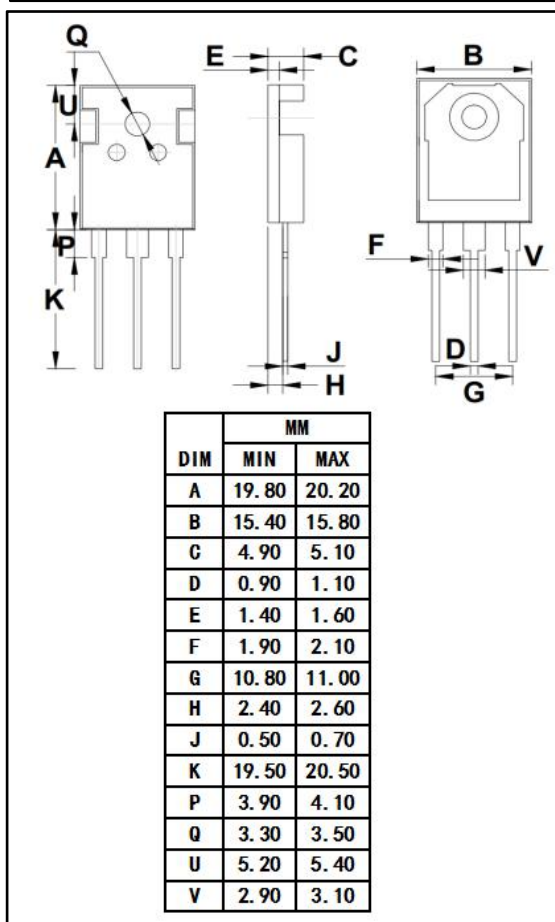
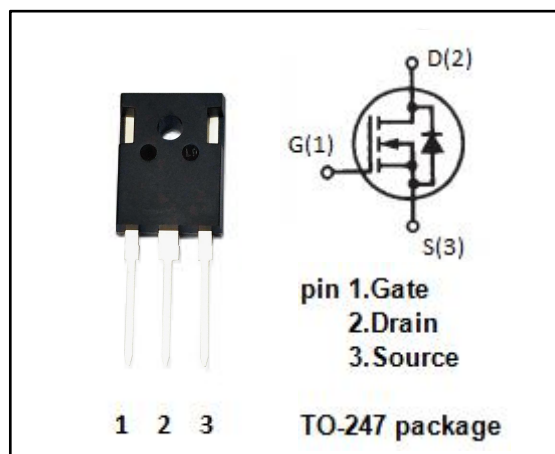
- Switching applications

• 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	52	A
I_{DM}	Drain Current-Single Pulsed	104	A
P_D	Total Dissipation	660	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	0.19	$^{\circ}\text{C}/\text{W}$



isc N-Channel MOSFET Transistor**IXTH52N65X****ELECTRICAL CHARACTERISTICS****T_C=25°C unless otherwise specified**

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
BV _{DSS}	Drain-Source Breakdown Voltage	V _{GS} =0V; I _D = 250uA	650			V
V _{GS(th)}	Gate Threshold Voltage	V _{DS} =±30V; I _D = 250uA	3		5	V
R _{DS(on)}	Drain-Source On-Resistance	V _{GS} = 10V; I _D = 26A			68	mΩ
I _{GSS}	Gate-Source Leakage Current	V _{GS} = ±30V; V _{DS} = 0V			± 100	nA
I _{DSS}	Drain-Source Leakage Current	V _{DS} = 650V; V _{GS} = 0V; @T _C =25°C T _C =125°C			10 100	μA
V _{SDF}	Diode forward voltage	I _{SD} =52A, V _{GS} = 0 V			1.4	V

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