

isc N-Channel MOSFET Transistor

IXTH40N30

• FEATURES

- Drain Source Voltage-
- : V_{DSS}= 300V(Min)
- Static Drain-Source On-Resistance
 - : $R_{DS(on)}$ = 85m Ω (Max)
- · Fast Switching
- · 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation



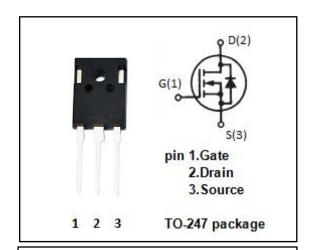
- Switch-Mode and Resonant-Mode Power Supplies
- DC-DC Converters
- · AC and DC Motor Drives

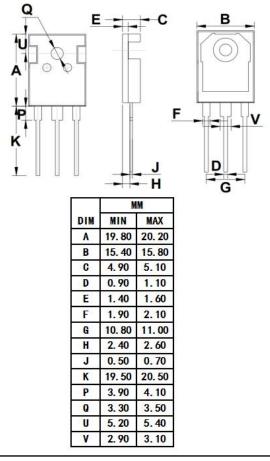
• ABSOLUTE MAXIMUM RATINGS(Ta=25°C)

PARAMETER	VALUE	UNIT	
Drain-Source Voltage	300	V	
Gate-Source Voltage-Continuous	±20	V	
Drain Current-Continuous	40	Α	
Drain Current-Single Plused	160	Α	
Total Dissipation @T _C =25℃	300	W	
Max. Operating Junction Temperature -55~150		$^{\circ}$	
Storage Temperature -55~150		$^{\circ}$ C	
	Drain-Source Voltage Gate-Source Voltage-Continuous Drain Current-Continuous Drain Current-Single Plused Total Dissipation @Tc=25°C Max. Operating Junction Temperature	Drain-Source Voltage300Gate-Source Voltage-Continuous ± 20 Drain Current-Continuous40Drain Current-Single Plused160Total Dissipation $\textcircled{T}_{c}=25^{\circ}C$ 300Max. Operating Junction Temperature-55~150	

• THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
R _{th j-c}	Thermal Resistance, Junction to Case	0.42	°C/W





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ELECTRICAL CHARACTERISTICS

Tc=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYPE	MAX	UNIT
V _{(BR)DSS}	Drain-Source Breakdown Voltage	V _{GS} = 0; I _D =250uA	300			V
V _{GS(th)}	Gate Threshold Voltage	V _{DS} = V _{GS} ; I _D = 250uA	2		4	V
R _{DS(on)}	Drain-Source On-Resistance	V _{GS} = 10V; I _D = 17.5A			85	mΩ
I _{GSS}	Gate-Body Leakage Current	V _{GS} = ±20V;V _{DS} = 0			±100	nA
I _{DSS}	Zero Gate Voltage Drain Current	V _{DS} =240V; V _{GS} = 0 V _{DS} =240V; V _{GS} = 0;T _J =125°C			200 1000	μΑ
V _{SD}	Diode Forward On-voltage	I _F = 40A;V _{GS} = 0			1.5	V



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