

isc N-Channel MOSFET Transistor

IXTP180N10T

FEATURES

- Static drain-source on-resistance: $R_{DS}(on) \le 6.4 m\Omega @V_{GS} = 10V$
- Fully characterized avalanche voltage and current
- · 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation



APPLICATION

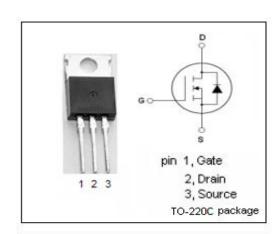
- DC/DC Converters
- High Speed Power Switching Applications

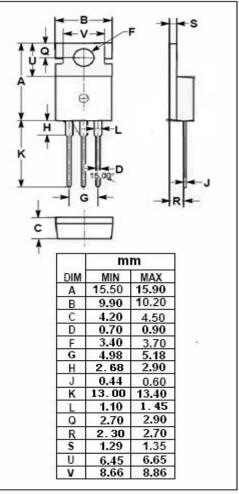


SYMBOL	PARAMETER	VALUE	UNIT	
V _{DSS}	Drain-Source Voltage	V		
V _{GS}	Gate-Source Voltage	±20	V	
I _D	Drain Current-Continuous 180		А	
I _{DM}	Drain Current-Single Pulsed	450	А	
P _D	Total Dissipation @T _C =25°C 480		W	
Tj	Operating Junction Temperature	-55~175	$^{\circ}$ C	
T _{stg}	Storage Temperature	-55~175	${\mathbb C}$	

• THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{\text{th(j-c)}}$	Junction-to-case thermal resistance	0.31	°C/W







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ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
BV _{DSS}	Drain-Source Breakdown Voltage	V _{GS} = 0V; ID = 250 μ A	100		V
V _{GS(th)}	Gate Threshold Voltage	V _{DS} = V _{GS} ; ID = 250 μ A	2.0	4.0	V
R _{DS(on)}	Drain-Source On-Resistance	V _{GS} =10V; I _D = 25A		6.4	mΩ
I _{GSS}	Gate-Source Leakage Current	V _{GS} = ±20V;V _{DS} =0V		±100	nA
I _{DSS}	Drain-Source Leakage Current	V _{DS} = V _{DSS} ; V _{GS} = 0V		5	μ Α
		V _{DS} = V _{DSS} ; V _{GS} = 0V;T _J = 150°C		100	
Vsp	Diode forward voltage	I _F = 25A; V _{GS} = 0V		0.95	V



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