

Isc N-Channel MOSFET Transistor

IXFK94N50P2

FEATURES

- Drain Current $-I_D = 94A @ T_C = 25^\circ C$
- Drain Source Voltage-
: $V_{DSS} = 500V(\text{Min})$
- Static Drain-Source On-Resistance
: $R_{DS(on)} = 55m\ \Omega (\text{Max}) @ V_{GS} = 10V$
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

DESCRIPTION

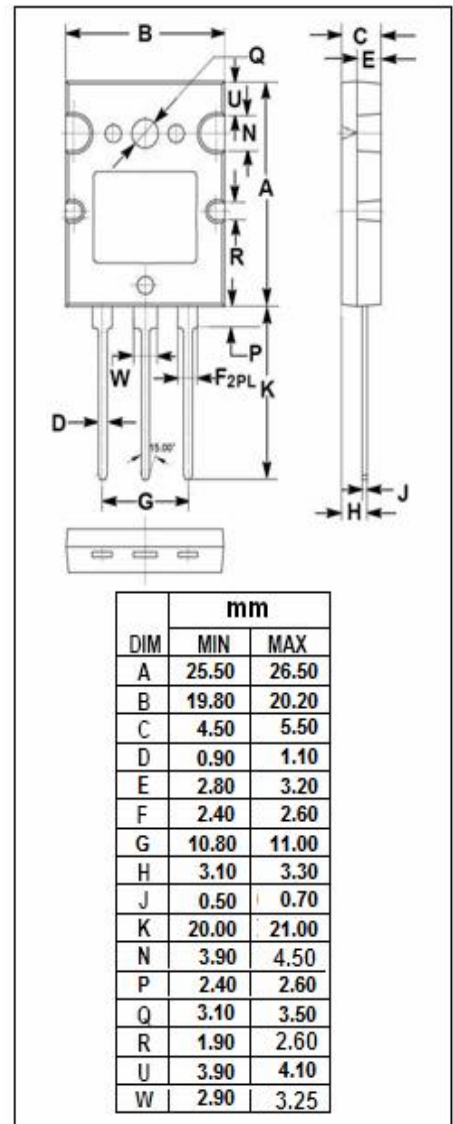
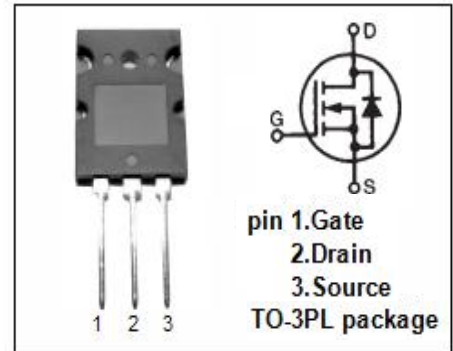
- motor drive, DC-DC converter, power switch and solenoid drive.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage	500	V
V_{GSS}	Gate-Source Voltage	± 30	V
I_D	Drain Current-Continuous $T_c = 25^\circ C$	94	A
I_{DM}	Drain Current-Single Pulsed	240	A
P_D	Total Dissipation @ $T_c = 25^\circ C$	1300	W
T_j	Max. Operating Junction Temperature	150	$^\circ C$
T_{stg}	Storage Temperature	-55~150	$^\circ C$

• THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th(ch-c)}$	Channel-to-case thermal resistance	0.096	$^\circ C/W$



Isc N-Channel MOSFET Transistor**IXFK94N50P2****ELECTRICAL CHARACTERISTICS**T_C=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
BV _{DSS}	Drain-Source Breakdown Voltage	V _{GS} =0V; I _D = 0.25mA	500	--	V
V _{GS(th)}	Gate Threshold Voltage	V _{DS} =V _{GS} ; I _D = 0.25mA	3.0	5.0	V
R _{DS(on)}	Drain-Source On-Resistance	V _{GS} = 10V; I _D = 47 A	--	55	mΩ
I _{GSS}	Gate-Source Leakage Current	V _{GS} = ±30V; V _{DS} = 0V	--	±200	nA
I _{DSS}	Drain-Source Leakage Current	V _{DS} = 550V; V _{GS} = 0V; T _C =25°C	--	10	μA
V _{SD}	Diode forward voltage	I _{SD} = 94A, V _{GS} = 0 V	--	1.5	V

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