

**isc N-Channel MOSFET Transistor**
**IPD100N04S4-02**
**• FEATURES**

- Drain Current  $-I_D = 100A @ T_C = 25^\circ C$
- Drain Source Voltage-  
:  $V_{DSS} = 40V(\text{Min})$
- Static Drain-Source On-Resistance  
:  $R_{DS(on)} : 4m\Omega (\text{Max})$
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

**• DESCRIPTION**

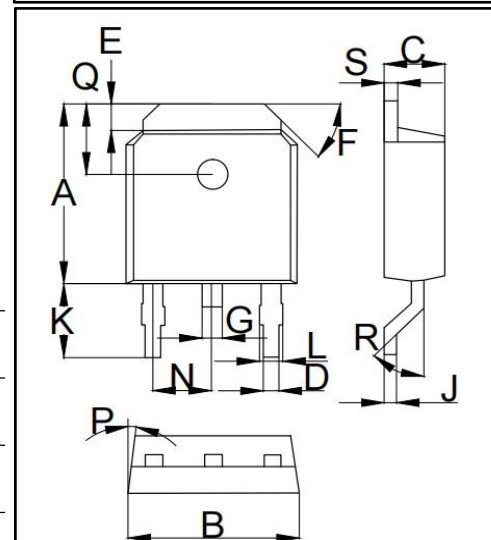
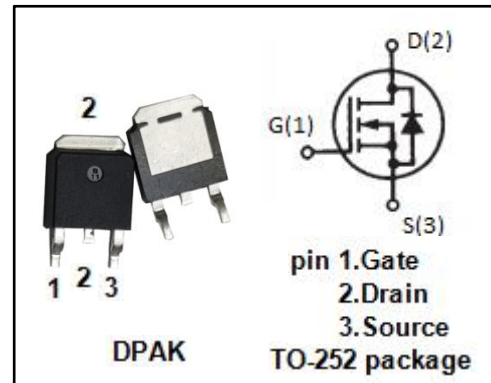
- Ultra Low On-resistance
- Fast Switching

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

SYMBOL	PARAMETER	VALUE	UNIT
$V_{DSS}$	Drain-Source Voltage	40	V
$V_{GS}$	Gate-Source Voltage	$\pm 20$	V
$I_D$	Drain Current-Continuous	100	A
$I_{DM}$	Drain Current-Single Pulsed	400	A
$P_D$	Total Dissipation @ $T_C = 25^\circ C$	69	W
$T_j$	Max. Operating Junction Temperature	175	$^\circ C$
$T_{stg}$	Storage Temperature	-55~175	$^\circ C$

**• THERMAL CHARACTERISTICS**

SYMBOL	PARAMETER	MAX	UNIT
$R_{th(j-c)}$	Channel-to-case thermal resistance	2.17	$^\circ C/W$



DIM	mm	
	MIN	MAX
A	6.90	7.30
B	6.50	6.70
C	2.20	2.40
D	0.50	0.72
E	0.90	1.10
F	45°	
G	0.70	0.90
J	0.40	0.60
K	2.85	3.50
L	0.70	0.90
N	2.20	2.35
P	7°	
Q	2.750	2.850
R	50°	
S	0.40	0.60

## isc N-Channel MOSFET Transistor

## IPD100N04S4-02

## ELECTRICAL CHARACTERISTICS

T<sub>c</sub>=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
BV <sub>DSS</sub>	Drain-Source Breakdown Voltage	V <sub>GS</sub> =0V; I <sub>D</sub> =1mA	40	-	V
V <sub>GS(th)</sub>	Gate Threshold Voltage	V <sub>DS</sub> =V <sub>GS</sub> ; I <sub>D</sub> = 95uA	2.0	4.0	V
R <sub>DS(on)</sub>	Drain-Source On-Resistance	V <sub>GS</sub> =10V; I <sub>D</sub> = 100A	-	4	mΩ
I <sub>GSS</sub>	Gate-Source Leakage Current	V <sub>GS</sub> = ±20V	-	±100	nA
I <sub>DSS</sub>	Drain-Source Leakage Current	V <sub>DS</sub> =40V; V <sub>GS</sub> = 0V	-	1.0	uA
V <sub>SD</sub>	Diode Forward Voltage	I <sub>SD</sub> = 100A; V <sub>GS</sub> = 0V		1.3	V

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