

# isc N-Channel MOSFET Transistor

## **RD3T100CN**

2.Drain 3. Source

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3.0

### **FEATURES**

- Drain Current –I<sub>D</sub>= 10A@ T<sub>C</sub>=25℃
- · Drain Source Voltage-: V<sub>DSS</sub>= 200V(Min)
- Static Drain-Source On-Resistance
- :  $R_{DS(on)} = 182m \Omega$  (Max)
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

### DESCRIPTION

• Designed for use in switch mode power supplies and general purpose applications.

SYMBOL	PARAMETER	VALUE	UNIT				
V <sub>DSS</sub>	Drain-Source Voltage	200	V				
V <sub>GS</sub>	Gate-Source Voltage-Continuous	±30	V				
ID	Drain Current-Continuous	10	А				
I <sub>DM</sub>	Drain Current-Single Pluse	40	А				
P <sub>D</sub>	Total Dissipation @T <sub>c</sub> =25℃	85	w				
TJ	Max. Operating Junction Temperature	ction Temperature 150					
T <sub>stg</sub>	Storage Temperature -55~150		°C				

### ABSOLUTE MAXIMUM RATINGS(Ta=25°C)

# isc & iscsemi is registered trademark

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0

10

2.10

0.40

90 0.

9.90

2. 50

2.40

0.60

isc website: www.iscsemi.com

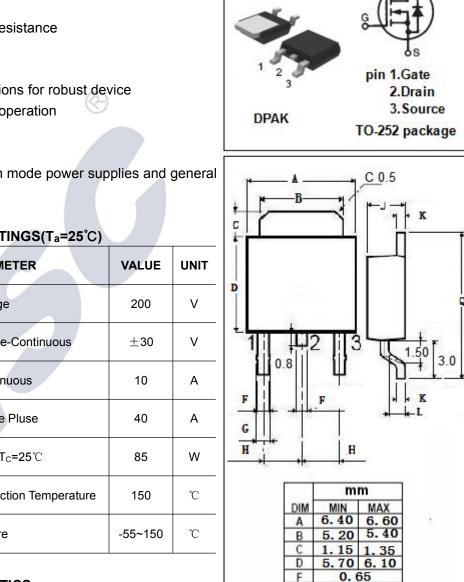
PARAMETER

Thermal Resistance, Junction to Case

**THERMAL CHARACTERISTICS** 

SYMBOL

Rth j-c



MAX

1.46

1

UNIT

°C/W



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### **ELECTRICAL CHARACTERISTICS**

#### $T_c=25^{\circ}C$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	МАХ	UNIT
V(BR)DSS	Drain-Source Breakdown Voltage	V <sub>GS</sub> = 0; I <sub>D</sub> = 1mA	200		V
V <sub>GS</sub> (th)	Gate Threshold Voltage	V <sub>DS</sub> = V <sub>GS</sub> ; I <sub>D</sub> = 1mA	3.25	5.25	V
$R_{\text{DS(on)}}$	Drain-Source On-Resistance	V <sub>GS</sub> = 10V; I <sub>D</sub> = 5A		182	mΩ
I <sub>GSS</sub>	Gate-Body Leakage Current	V <sub>GS</sub> = ±30V;V <sub>DS</sub> = 0		±100	nA
I <sub>DSS</sub>	Zero Gate Voltage Drain Current	V <sub>DS</sub> = 200V; V <sub>GS</sub> = 0		10	μA
V <sub>SD</sub>	Forward On-Voltage	I <sub>S</sub> = 10A; V <sub>GS</sub> = 0		1.5	V

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