

# isc N-Channel MOSFET Transistor

## IRF840LC

#### FEATURES

- · With low gate drive requirements
- · Ultra low gate charge
- Extremely high frequency operation
- · 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation



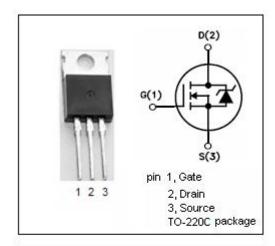
- · Switching applications
- For DC-DC converter

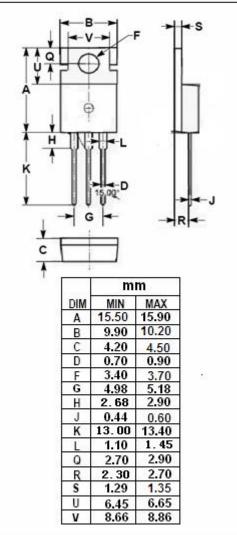


SYMBOL	PARAMETER	VALUE	UNIT	
V <sub>DSS</sub>	Drain-Source Voltage	500	V	
V <sub>GSS</sub>	Gate-Source Voltage	±30	V	
I <sub>D</sub>	Drain Current-Continuous@ $T_c$ =25° $C$ $T_c$ =100° $C$	8.0 5.1	А	
I <sub>DM</sub>	Drain Current-Single Pulsed	28	Α	
P <sub>D</sub>	Total Dissipation	125	W	
T <sub>j</sub>	Operating Junction Temperature	-55~150	°C	
T <sub>stg</sub>	Storage Temperature	-55~150	$^{\circ}\mathbb{C}$	

## • THERMAL CHARACTERISTICS

SYMBOL	PARAMETER		UNIT	
Rth(ch-c)	Channel-to-case thermal resistance	0.5	°C/W	
Rth(ch-a)	Channel-to-ambient thermal resistance	62	°C/W	







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### **ELECTRICAL CHARACTERISTICS**

T<sub>C</sub>=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	ТҮР	MAX	UNIT
BV <sub>DSS</sub>	Drain-Source Breakdown Voltage	V <sub>GS</sub> =0V; I <sub>D</sub> = 0.25mA	500			V
V <sub>GS(th)</sub>	Gate Threshold Voltage	V <sub>DS</sub> =±30V; I <sub>D</sub> =0.25mA	2		4	V
R <sub>DS(on)</sub>	Drain-Source On-Resistance	V <sub>GS</sub> = 10V; I <sub>D</sub> =4.8A			850	mΩ
I <sub>GSS</sub>	Gate-Source Leakage Current	V <sub>GS</sub> = ±30V;V <sub>DS</sub> =0V			±0.1	μА
I <sub>DSS</sub>	Drain-Source Leakage Current	V <sub>DS</sub> = 500V; V <sub>GS</sub> = 0V@Tj=25°C Tj=125°C			25 250	μА
V <sub>SDF</sub>	Diode forward voltage	I <sub>SD</sub> =8A, V <sub>GS</sub> = 0 V			2.0	V

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