

isc N-Channel Mosfet Transistor

IRF840

• FEATURES

- Drain Current $-I_D=8.0A@ T_C=25^\circ C$
- Drain Source Voltage-
: $V_{DSS}= 500V(\text{Min})$
- Static Drain-Source On-Resistance
: $R_{DS(on)} = 0.85 \Omega (\text{Max})$
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

• DESCRIPTION

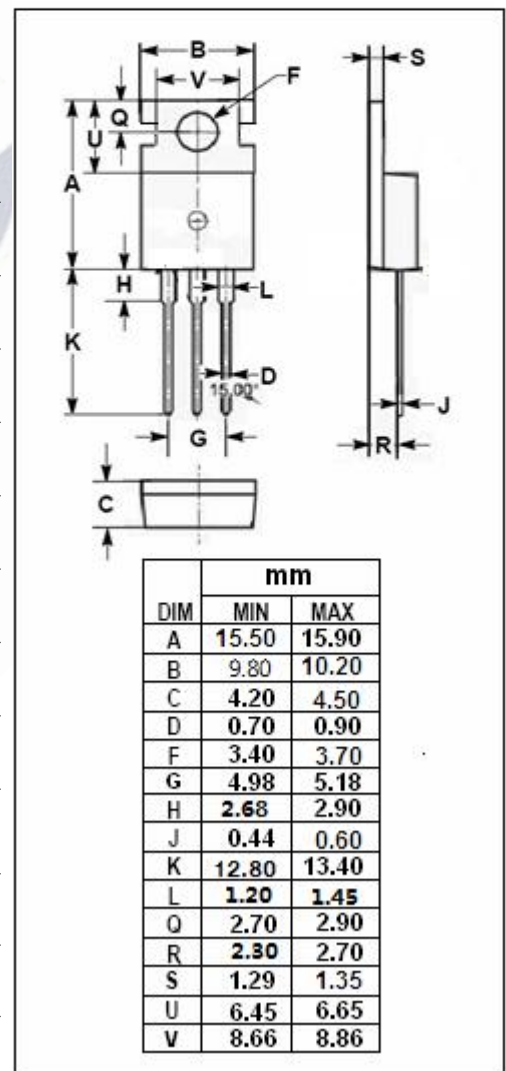
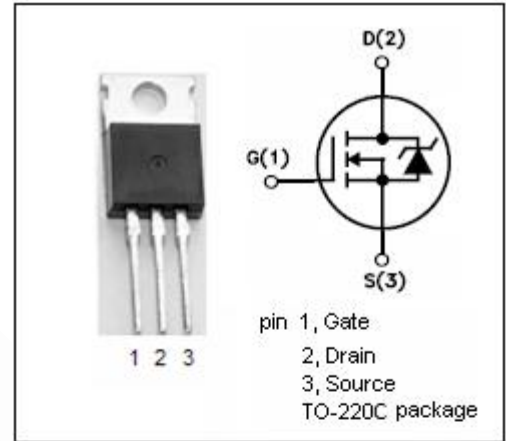
- Designed for high voltage, high speed switching power applications such as switching regulators, converters, solenoid and relay drivers.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage	500	V
V_{GS}	Gate-Source Voltage-Continuous	± 20	V
I_D	Drain Current-Continuous	8	A
I_{DM}	Drain Current-Single Plused	32	A
P_D	Total Dissipation @ $T_C=25^\circ C$	125	W
T_j	Max. Operating Junction Temperature	150	$^\circ C$
T_{stg}	Storage Temperature	-55~150	$^\circ C$

• THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th j-c}$	Thermal Resistance,Junction to Case	1.0	$^\circ C/W$
$R_{th j-a}$	Thermal Resistance,Junction to Ambient	62.5	$^\circ C/W$



isc N-Channel Mosfet Transistor**IRF840****ELECTRICAL CHARACTERISTICS** $T_C=25^{\circ}\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
$V_{(BR)DSS}$	Drain-Source Breakdown Voltage	$V_{GS}=0; I_D=0.25\text{mA}$	500		V
$V_{GS(th)}$	Gate Threshold Voltage	$V_{DS}=V_{GS}; I_D=0.25\text{mA}$	2	4	V
$R_{DS(on)}$	Drain-Source On-Resistance	$V_{GS}=10\text{V}; I_D=4.8\text{A}$		0.85	Ω
I_{GSS}	Gate-Body Leakage Current	$V_{GS}=\pm 20\text{V}; V_{DS}=0$		± 100	nA
I_{DSS}	Zero Gate Voltage Drain Current	$V_{DS}=500\text{V}; V_{GS}=0$		25	μA
V_{SD}	Forward On-Voltage	$I_S=8\text{A}; V_{GS}=0$		2.0	V