

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  
:  $R_{DS(on)} = 0.85 \Omega (\text{Max})$

• DESCRIPTION

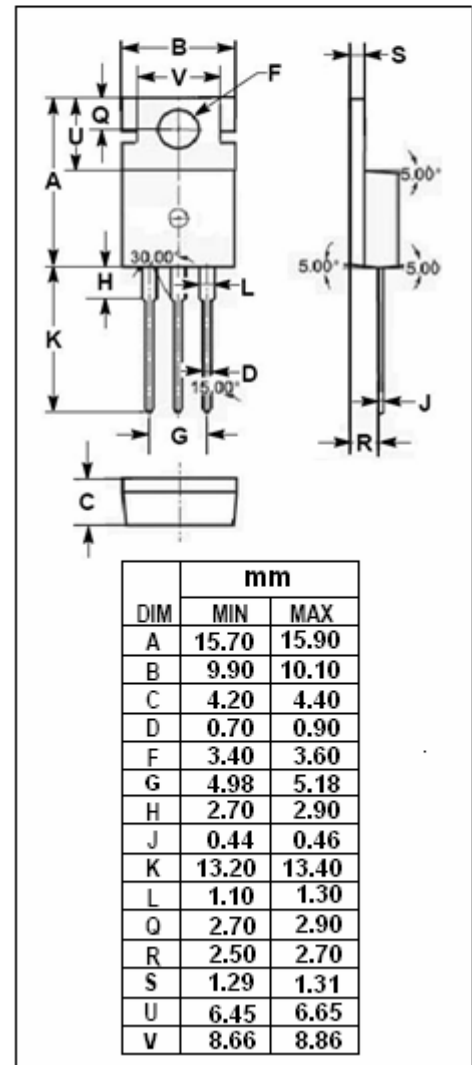
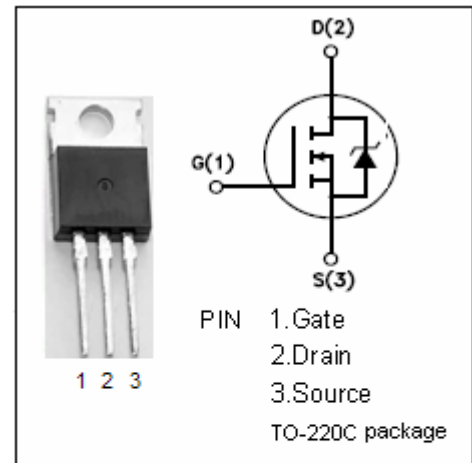
- Designed for high voltage, high speed switching power applications such as switching regulators, converters, solenoid and relay drivers.

• 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	$\pm 20$	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	$V_{GS}=10\text{V}; I_D=4\text{A}$		0.85	$\Omega$
$I_{GSS}$	Gate-Body Leakage Current	$V_{GS}=\pm 20\text{V}; V_{DS}=0$		$\pm 500$	nA
$I_{DSS}$	Zero Gate Voltage Drain Current	$V_{DS}=500\text{V}; V_{GS}=0$		250	nA
$V_{SD}$	Forward On-Voltage	$I_S=8\text{A}; V_{GS}=0$		2.0	V