

isc N-Channel MOSFET Transistor

8N40

• DESCRIPTION

- Drain Current $I_D = 8A @ T_C = 25^\circ C$
- Drain Source Voltage-
: $V_{DSS} = 450V(\text{Min})$
- Fast Switching Speed
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

• APPLICATIONS

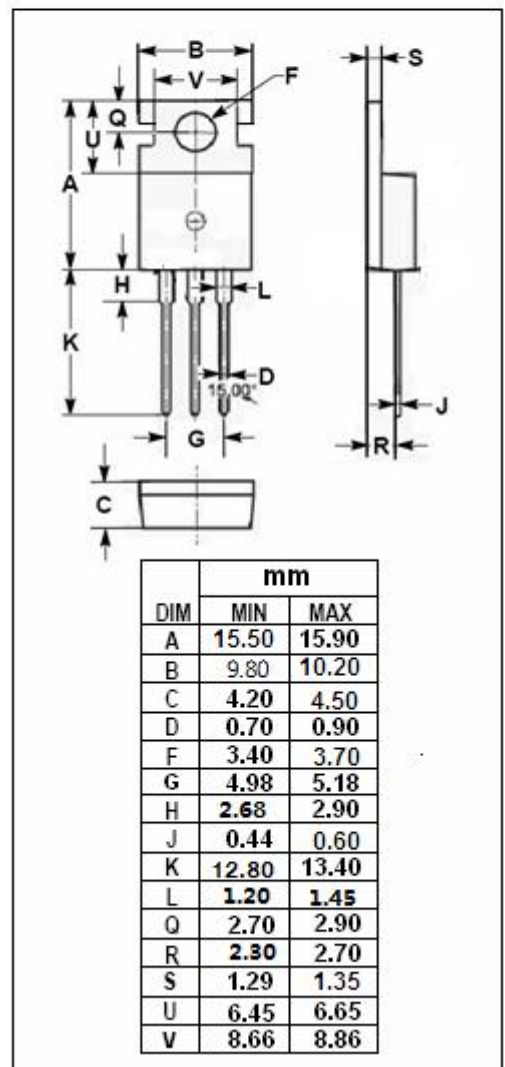
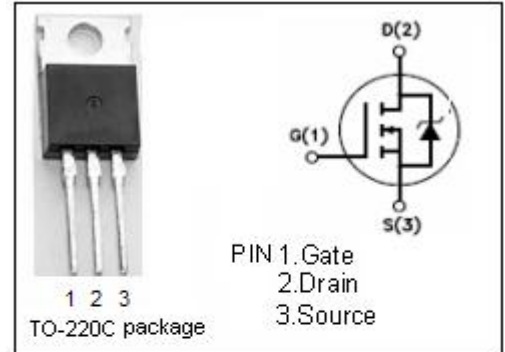
- The ISC 8N40 is universally applied in electronic lamp ballast based on half bridge topology and high efficient switched mode power supply

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage ($V_{GS}=0$)	400	V
V_{GS}	Gate-Source Voltage	± 30	V
I_D	Drain Current-continuous@ $T_C = 25^\circ C$	8	A
$I_{D(\text{puls})}$	Pulse Drain Current	32	A
P_{tot}	Total Dissipation@ $T_C = 25^\circ C$	104	W
T_j	Max. Operating Junction Temperature	150	$^\circ C$
T_{stg}	Storage Temperature Range	-55~150	$^\circ C$

• THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{\text{th j-c}}$	Thermal Resistance, Junction to Case	0.832	$^\circ C/W$



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• ELECTRICAL CHARACTERISTICS (T_c=25°C)

SYMBOL	PARAMETER	CONDITIONS	MIN	TYPE	MAX	UNIT
V _{(BR)DSS}	Drain-Source Breakdown Voltage	V _{GS} = 0; I _D =250μA	400			V
V _{GS(th)}	Gate Threshold Voltage	V _{DS} = V _{GS} ; I _D =250μA	2.0		4.0	V
V _{SD}	Diode Forward On-Voltage	I _S =8A; V _{GS} = 0			1.9	V
R _{DS(on)}	Drain-Source On-Resistance	V _{GS} = 10V; I _D =4A			0.8	Ω
I _{GSS}	Gate-Body Leakage Current	V _{GS} = ±30V; V _{DS} = 0			± 100	nA
I _{DSS}	Zero Gate Voltage Drain Current	V _{DS} = 400V; V _{GS} = 0			10	μA
C _{iss}	Input Capacitance	V _{DS} =25V;			1600	pF
C _{rss}	Reverse Transfer Capacitance	V _{GS} =0V;			150	
C _{oss}	Output Capacitance	f _r =1MHz			450	
t _r	Rise Time	V _{GS} =10V;			15	ns
t _{d(on)}	Turn-on Delay Time	I _D =8A;			35	
t _f	Fall Time	V _{DD} =200V;			90	
t _{d(off)}	Turn-off Delay Time	R _L =25 Ω			35	

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