

isc N-Channel Mosfet Transistor

13N50

• FEATURES

- Drain Current $I_D = 13A @ T_C = 25^\circ C$
- Drain Source Voltage-
: $V_{DSS} = 500V(\text{Min})$
- Low ON Resistance $R_{DS(on)} = 0.48 \Omega (\text{Max})$
- Fast Switching

• DESCRIPTION

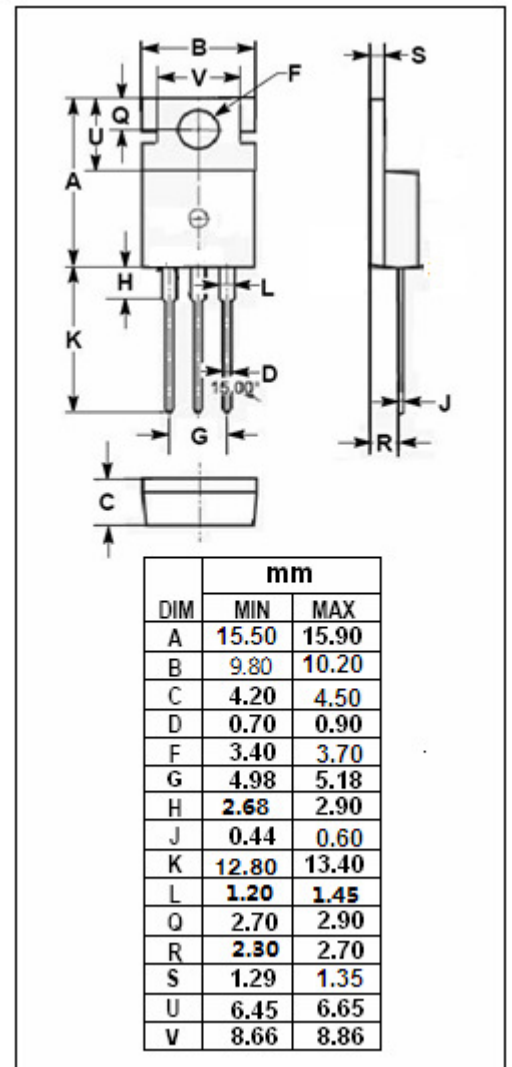
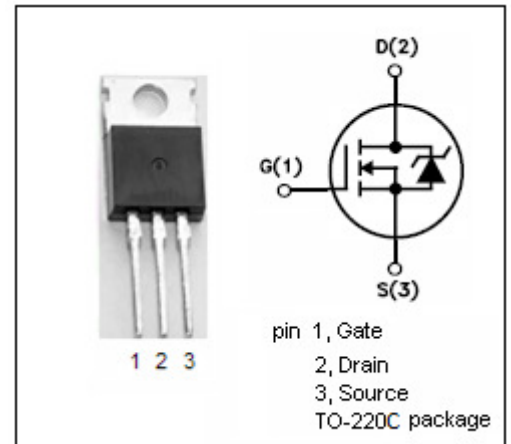
- High efficiency switch mode power supply
- Power factor correction
- Electronic lamp ballast

• 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	± 30	V
I_D	Drain Current-Continuous	13	A
I_{DM}	Drain Current-Single Plused	52	A
P_D	Power Dissipation	195	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
$R_{th j-c}$	Thermal Resistance, Junction to Case	0.64	$^\circ C/W$
$R_{th j-a}$	Thermal Resistance, Junction to Ambient	62.5	$^\circ C/W$



isc N-Channel Mosfet Transistor**13N50****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
$R_{DS(on)}$	Drain-Source On-Resistance	$V_{GS}=10\text{V}; I_D=6.5\text{A}$		0.48	Ω
I_{GSS}	Gate-Body Leakage Current	$V_{GS}= \pm 30\text{V}; V_{DS}=0$		± 100	nA
I_{DSS}	Zero Gate Voltage Drain Current	$V_{DS}=500\text{V}; V_{GS}=0$		1	μA
V_{SD}	Forward On-Voltage	$I_S=13\text{A}; V_{GS}=0$		1.4	V