

isc N-Channel MOSFET Transistor

4N45

DESCRIPTION

- Drain Current  $I_D = 4A @ T_C = 25^\circ C$
- Drain Source Voltage-  
:  $V_{DSS} = 450V(\text{Min})$
- Fast Switching Speed

APPLICATIONS

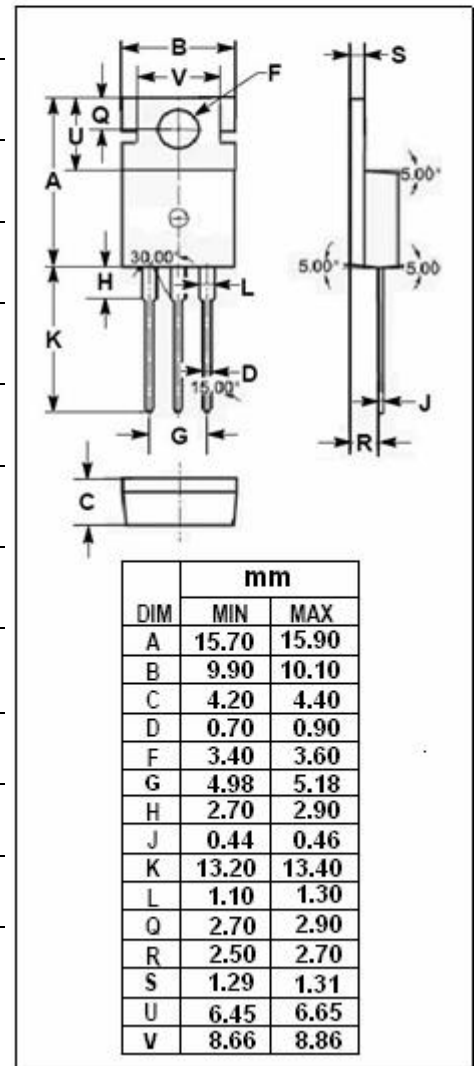
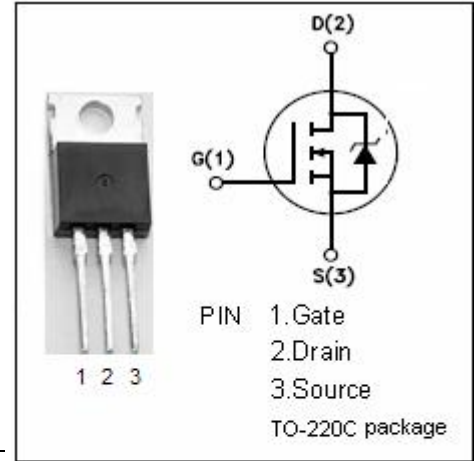
- General purpose power amplifier

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

SYMBOL	PARAMETER	VALUE	UNIT
$V_{DSS}$	Drain-Source Voltage ( $V_{GS} = 0$ )	450	V
$V_{GS}$	Gate-Source Voltage	$\pm 30$	V
$I_D$	Drain Current-continuous@ $T_C = 25^\circ C$	4	A
$I_{D(\text{puls})}$	Pulse Drain Current	10	A
$P_{\text{tot}}$	Total Dissipation@ $T_C = 25^\circ C$	75	W
$T_j$	Max. Operating Junction Temperature	150	$^\circ C$
$T_{\text{stg}}$	Storage Temperature Range	-55~150	$^\circ C$

• THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{\text{th j-c}}$	Thermal Resistance, Junction to Case	3	$^\circ C/W$
$R_{\text{th j-a}}$	Thermal Resistance, Junction to Ambient	62.5	$^\circ C/W$



**isc N-Channel MOSFET Transistor****4N45**• ELECTRICAL CHARACTERISTICS ( $T_C=25^\circ\text{C}$ )

SYMBOL	PARAMETER	CONDITIONS	MIN	TYPE	MAX	UNIT
$V_{(BR)DSS}$	Drain-Source Breakdown Voltage	$V_{GS}=0; I_D=250\mu\text{A}$	450			V
$V_{GS(th)}$	Gate Threshold Voltage	$V_{DS}=V_{GS}; I_D=250\mu\text{A}$	2.0		4.0	V
$V_{SD}$	Diode Forward On-Voltage	$I_S=4\text{A}; V_{GS}=0$			1.4	V
$R_{DS(on)}$	Drain-Source On-Resistance	$V_{GS}=10\text{V}; I_D=2.5\text{A}$			2.5	$\Omega$
$I_{GSS}$	Gate-Body Leakage Current	$V_{GS}= \pm 30\text{V}; V_{DS}=0$			$\pm 100$	nA
$I_{DSS}$	Zero Gate Voltage Drain Current	$V_{DS}=450\text{V}; V_{GS}=0$			10	$\mu\text{A}$