

isc N-Channel MOSFET Transistor

35N10

• FEATURES

- Drain Current  $I_D = 35A @ T_C = 25^\circ C$
- Drain Source Voltage-  
:  $V_{DSS} = 100V (Min)$
- Static Drain-Source On-Resistance  
:  $R_{DS(on)} = 0.055 \Omega (Max)$
- Fast Switching

• APPLICATIONS

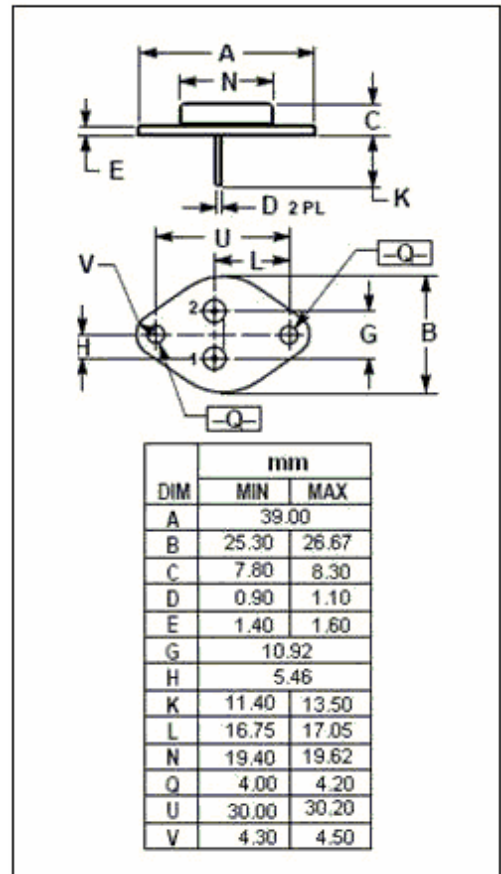
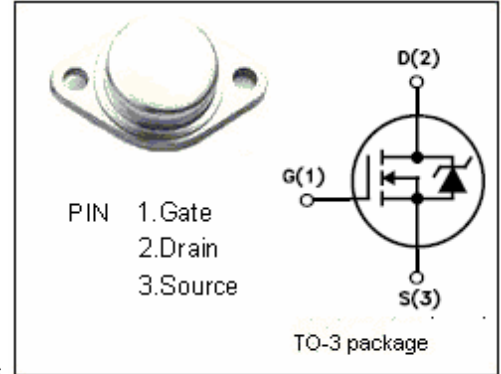
- Switching power supplies, converters, AC and DC motor controls

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

SYMBOL	PARAMETER	VALUE	UNIT
$V_{DSS}$	Drain-Source Voltage	100	V
$V_{GS}$	Gate-Source Voltage-Continuous	$\pm 30$	V
$I_D$	Drain Current-Continuous	35	A
$I_{DM}$	Drain Current-Single Plused	100	A
$P_D$	Total Dissipation @ $T_C = 25^\circ C$	150	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	0.83	$^\circ C/W$



## isc N-Channel MOSFET Transistor

35N10

## • ELECTRICAL CHARACTERISTICS

 $T_C=25^{\circ}\text{C}$  unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYPE	MAX	UNIT
$V_{(BR)DSS}$	Drain-Source Breakdown Voltage	$V_{GS}=0; I_D=1\text{mA}$	100			V
$V_{GS(th)}$	Gate Threshold Voltage	$V_{DS}=V_{GS}; I_D=1\text{mA}$	2.0		4.0	V
$V_{SD}$	Diode Forward On-voltage	$I_S=17.5\text{A}; V_{GS}=0$			1.4	V
$R_{DS(on)}$	Drain-Source On-Resistance	$V_{GS}=10\text{V}; I_D=17.5\text{A}$			0.055	$\Omega$
$I_{GSS}$	Gate-Body Leakage Current	$V_{GS}=\pm 20\text{V}; V_{DS}=0$			$\pm 100$	nA
$I_{DSS}$	Zero Gate Voltage Drain Current	$V_{DS}=80\text{V}; V_{GS}=0$			1	$\mu\text{A}$
$C_{iss}$	Input Capacitance	$V_{DS}=25\text{V};$ $V_{GS}=0\text{V};$ $f_T=1\text{MHz}$			3000	pF
$C_{rss}$	Reverse Transfer capacitance				600	
$C_{oss}$	Output Capacitance				1500	
$t_r$	Rise Time	$V_{GS}=10\text{V};$ $I_D=17.5\text{A};$ $V_{DD}=50\text{V};$ $R_L=50\Omega$		225	450	ns
$t_{d(on)}$	Turn-on Delay Time			40	100	
$t_f$	Fall Time			165	350	
$t_{d(off)}$	Turn-off Delay Time			240	450	