

isc N-Channel Mosfet Transistor

IRF627

• FEATURES

- $R_{DS(on)} = 1.5 \Omega$
- 3.3A and 275V
- single pulse avalanche energy rated
- SOA is Power- Dissipation Limited
- Linear Transfer Characteristics
- High Input Impedance

• DESCRIPTION

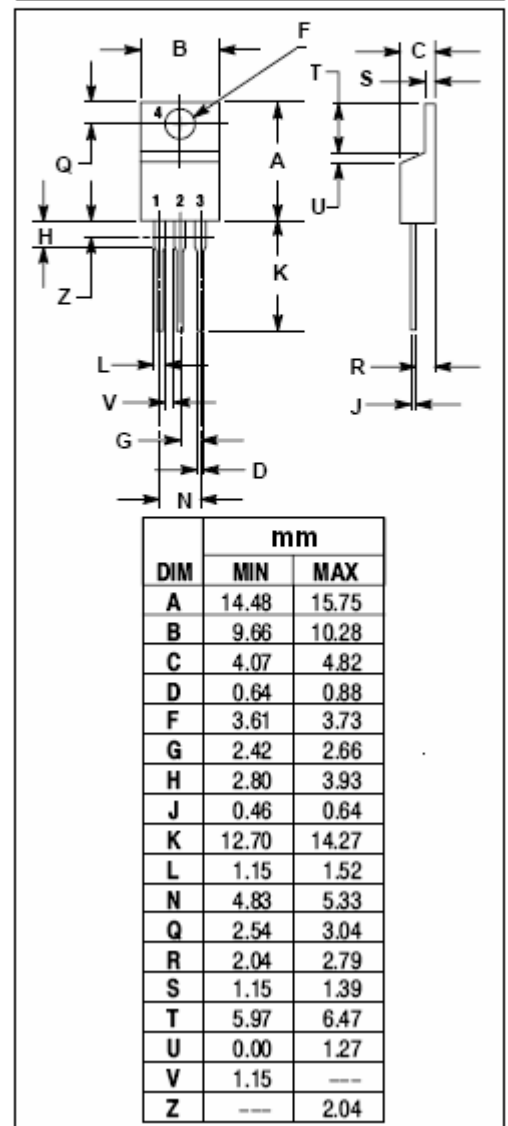
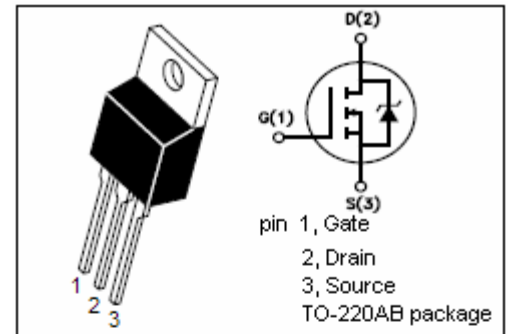
- Designed for high speed applications, such as switching power supplies , AC and DC motor controls ,relay and solenoid drivers and other pulse.

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

SYMBOL	PARAMETER	VALUE	UNIT
$V_{DSS}$	Drain-Source Voltage	275	V
$V_{GS}$	Gate-Source Voltage-Continuous	$\pm 20$	V
$I_D$	Drain Current-Continuous	3.3	A
$I_{DM}$	Drain Current-Single Plused	13	A
$P_D$	Total Dissipation @ $T_C=25^\circ C$	40	W
$T_j$	Max. Operating Junction Temperature	-55~150	$^\circ C$
$T_{stg}$	Storage Temperature	-55~150	$^\circ C$

• THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th j-c}$	Thermal Resistance,Junction to Case	3.12	$^\circ C/W$
$R_{th j-a}$	Thermal Resistance,Junction to Ambient	80	$^\circ C/W$



**isc N-Channel Mosfet Transistor****IRF627****ELECTRICAL CHARACTERISTICS** $T_C=25^{\circ}\text{C}$  unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
$V_{(BR)DSS}$	Drain-Source Breakdown Voltage	$V_{GS}=0; I_D=0.25\text{mA}$	250			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	$V_{GS}=10\text{V}; I_D=1.4\text{A}$			1.5	$\Omega$
$I_{GSS}$	Gate-Body Leakage Current	$V_{GS}=\pm 20\text{V}; V_{DS}=0$			$\pm 500$	nA
$I_{DSS}$	Zero Gate Voltage Drain Current	$V_{DS}=275\text{V}; V_{GS}=0$			250	$\mu\text{A}$
$V_{SD}$	Forward On-Voltage	$I_S=3.8\text{A}; V_{GS}=0$			1.8	V
$C_{iss}$	Input Capacitance	$V_{DS}=25\text{V}; V_{GS}=0\text{V}; F=1.0\text{MHz}$		340		pF
$C_{oss}$	Output Capacitance			110		pF
$C_{rss}$	Reverse Transfer Capacitance			32		pF

**• SWITCHING CHARACTERISTICS ( $T_C=25^{\circ}\text{C}$ )**

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
$T_d(on)$	Turn-on Delay Time	$V_{DD}=125\text{V}; I_D=3.8\text{A}; R_G=18\Omega$		11	17	ns
$T_r$	Rise Time			24	36	ns
$T_d(off)$	Turn-off Delay Time			21	32	ns
$T_f$	Fall Time			13	20	ns