

# isc N-Channel MOSFET Transistor

60N06-14

**DESCRIPTION**

- High current capability
- Avalanche rugged technology
- Low gate charge
- Fast Switching Speed
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

**APPLICATIONS**

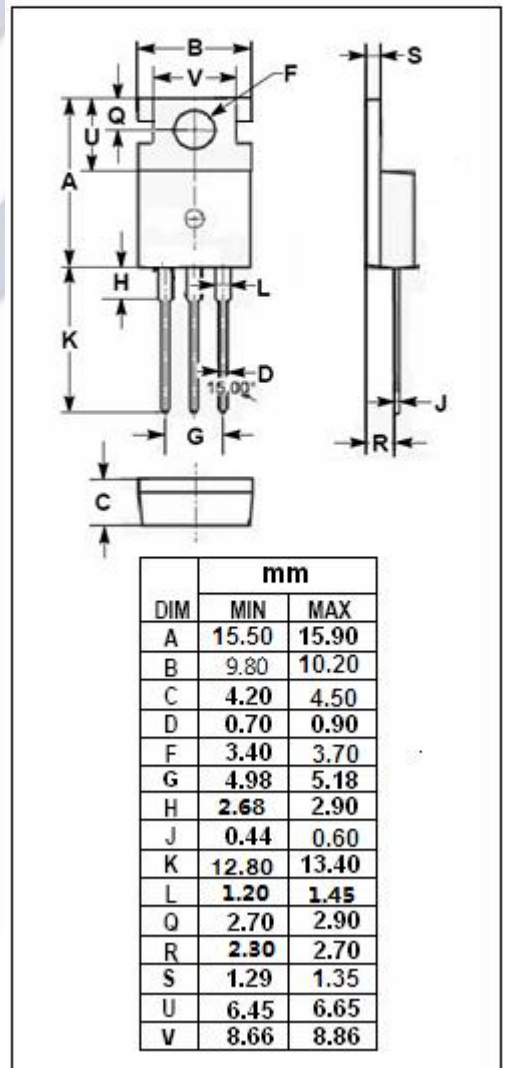
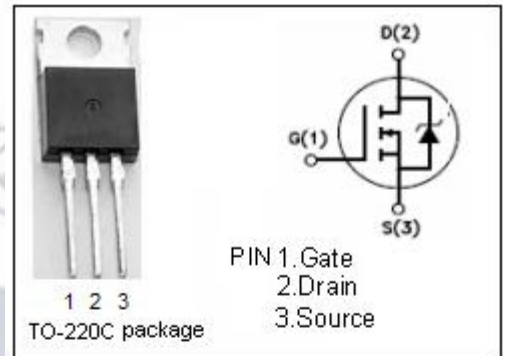
- Regulator
- High current,high speed switching
- Solenoid and relay drivers

**ABSOLUTE MAXIMUM RATINGS(T<sub>C</sub>=25°C)**

SYMBOL	PARAMETER	VALUE	UNIT
V <sub>DSS</sub>	Drain-Source Voltage (V <sub>GS</sub> =0)	60	V
V <sub>GS</sub>	Gate-Source Voltage	±20	V
I <sub>D</sub>	Drain Current-continuous@ T <sub>C</sub> =25°C	60	A
	Drain Current-continuous@ T <sub>C</sub> =100°C	50	
I <sub>D(puls)</sub>	Pulse Drain Current	240	A
P <sub>tot</sub>	Total Dissipation@T <sub>C</sub> =25°C	150	W
T <sub>j</sub>	Max. Operating Junction Temperature	175	°C
T <sub>stg</sub>	Storage Temperature Range	-55~175	°C

**THERMAL CHARACTERISTICS**

SYMBOL	PARAMETER	MAX	UNIT
R <sub>th j-c</sub>	Thermal Resistance, Junction to Case	1.0	°C/W
R <sub>th j-a</sub>	Thermal Resistance, Junction to Ambient	62.5	°C/W



**isc N-Channel MOSFET Transistor****60N06-14**• ELECTRICAL CHARACTERISTICS ( $T_c=25^\circ\text{C}$ )

SYMBOL	PARAMETER	CONDITIONS	MIN	TYPE	MAX	UNIT
$V_{(BR)DSS}$	Drain-Source Breakdown Voltage	$V_{GS}=0; I_D=250\mu\text{A}$	60			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	$I_S=60\text{A}; V_{GS}=0$			1.6	V
$R_{DS(on)}$	Drain-Source On-Resistance	$V_{GS}=10\text{V}; I_D=30\text{A}$			14	$\text{m}\Omega$
$I_{GSS}$	Gate-Body Leakage Current	$V_{GS}=\pm 20\text{V}; V_{DS}=0$			$\pm 100$	nA
$I_{DSS}$	Zero Gate Voltage Drain Current	$V_{DS}=60\text{V}; V_{GS}=0$			250	$\mu\text{A}$