

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

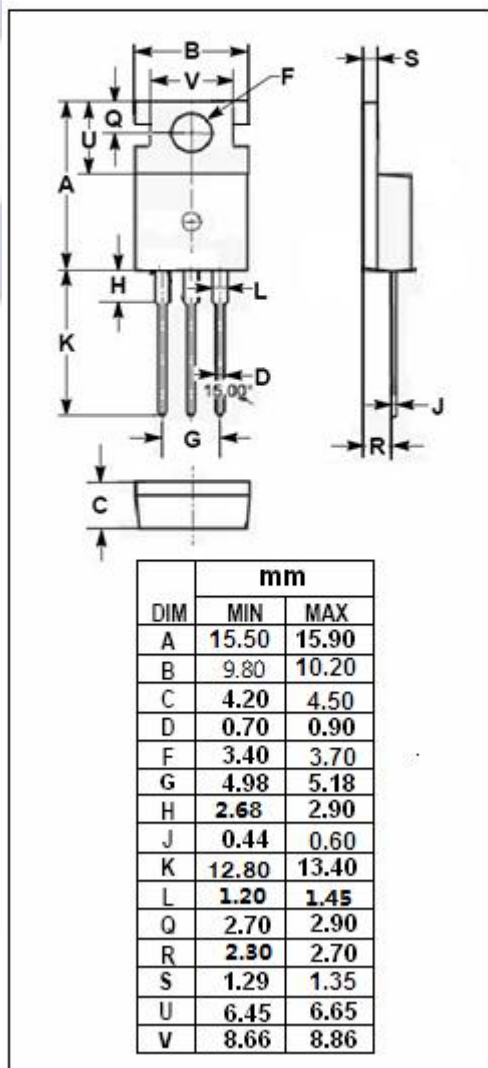
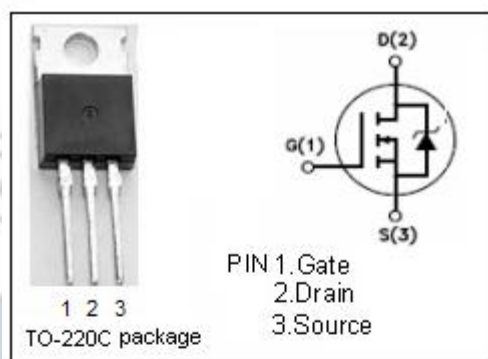
- Regulator
- High current,high speed switching
- Solenoid and relay drivers

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

SYMBOL	ARAMETER	VALUE	UNIT
V_{DS}	Drain-Source Voltage ($V_{GS}=0$)	60	V
V_{GS}	Gate-Source Voltage	± 20	V
I_D	Drain Current-continuous@ $T_C=25^{\circ}\text{C}$	60	A
	Drain Current-continuous@ $T_C=100^{\circ}\text{C}$	50	
$I_{D(puls)}$	Pulse Drain Current	240	A
P_{tot}	Total Dissipation@ $T_C=25^{\circ}\text{C}$	150	W
T_j	Max. Operating Junction Temperature	175	$^{\circ}\text{C}$
T_{stg}	Storage Temperature Range	-55~175	$^{\circ}\text{C}$

• THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	1.0	$^{\circ}\text{C/W}$
$R_{th\ j-a}$	Thermal Resistance, Junction to Ambient	62.5	$^{\circ}\text{C/W}$



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	$V_{GS}=\pm 20\text{V}; V_{DS}=0$			± 100	nA
I_{DSS}	Zero Gate Voltage Drain Current	$V_{DS}=60\text{V}; V_{GS}=0$			250	μA