

# isc N-Channel MOSFET Transistor

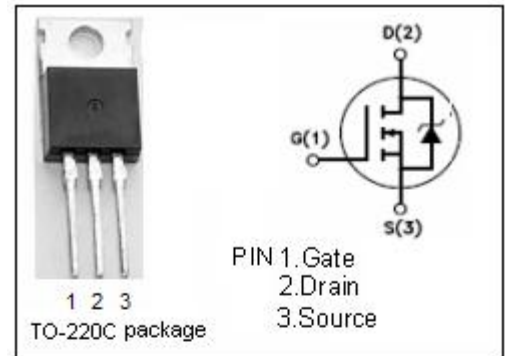
## 60N06-14

### • 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

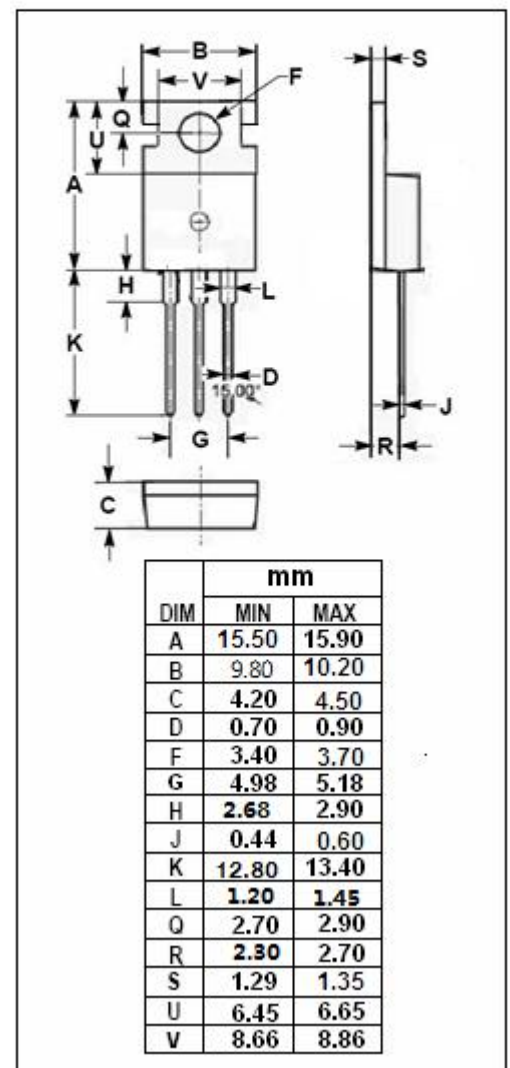


### ABSOLUTE MAXIMUM RATINGS( $T_C=25^\circ\text{C}$ )

SYMBOL	PARAMETER	VALUE	UNIT
$V_{DSS}$	Drain-Source Voltage ( $V_{GS}=0$ )	60	V
$V_{GS}$	Gate-Source Voltage	$\pm 20$	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	$^\circ\text{C}/\text{W}$
$R_{th\ j-a}$	Thermal Resistance, Junction to Ambient	62.5	$^\circ\text{C}/\text{W}$



**isc N-Channel MOSFET Transistor****60N06-14****• ELECTRICAL CHARACTERISTICS (T<sub>c</sub>=25°C)**

SYMBOL	PARAMETER	CONDITIONS	MIN	TYPE	MAX	UNIT
V <sub>(BR)DSS</sub>	Drain-Source Breakdown Voltage	V <sub>GS</sub> = 0; I <sub>D</sub> = 250μA	60			V
V <sub>GS(th)</sub>	Gate Threshold Voltage	V <sub>DS</sub> = V <sub>GS</sub> ; I <sub>D</sub> =250μA	2.0		4.0	V
V <sub>SD</sub>	Diode Forward On-Voltage	I <sub>S</sub> =60A; V <sub>GS</sub> = 0			1.6	V
R <sub>DS(on)</sub>	Drain-Source On-Resistance	V <sub>GS</sub> = 10V; I <sub>D</sub> =30A			14	mΩ
I <sub>GSS</sub>	Gate-Body Leakage Current	V <sub>GS</sub> = ±20V; V <sub>DS</sub> = 0			±100	nA
I <sub>DSS</sub>	Zero Gate Voltage Drain Current	V <sub>DS</sub> = 60V; V <sub>GS</sub> = 0			250	μA

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