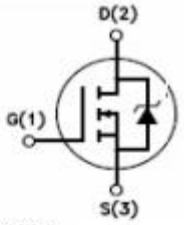
isc N-Channel MOSFET Transistor 60N06-18

- **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

1 2 3
TO-220C package



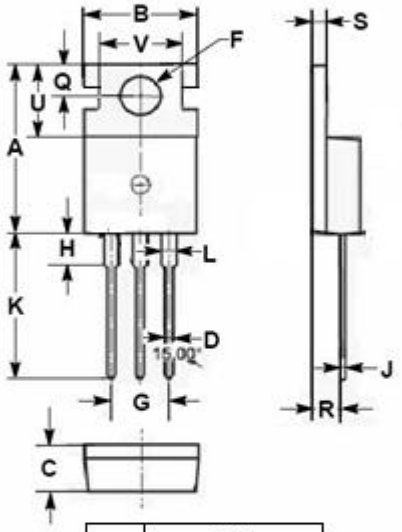
PIN 1.Gate
2.Drain
3.Source

ABSOLUTE MAXIMUM RATINGS(T_C=25℃)

SYMBOL	ARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage (V_{GS}=0)	60	V
V_{GS}	Gate-Source Voltage	±20	V
I_D	Drain Current-continuous@ T_C=25℃	60	A
	Drain Current-continuous@ T_C=100℃	39	
$I_{D(puls)}$	Pulse Drain Current	120	A
P_{tot}	Total Dissipation@T_C=25℃	150	W
T_j	Max. Operating Junction Temperature	175	℃
T_{stg}	Storage Temperature Range	-55~175	℃

• THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}c}$	Thermal Resistance, Junction to Case	1.25	℃/W
$R_{th\ j\text{-}a}$	Thermal Resistance, Junction to Ambient	62.5	℃/W



DIM	mm MIN	MAX
A	15.50	15.90
B	9.80	10.20
C	4.20	4.50
D	0.70	0.90
F	3.40	3.70
G	4.98	5.18
H	2.68	2.90
J	0.44	0.60
K	12.80	13.40
L	1.20	1.45
Q	2.70	2.90
R	2.30	2.70
S	1.29	1.35
U	6.45	6.65
V	8.66	8.86

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• ELECTRICAL CHARACTERISTICS (T_C=25℃)

SYMBOL	PARAMETER	CONDITIONS	MIN	TYPE	MAX	UNIT
$V_{(BR)DSS}$	Drain-Source Breakdown Voltage	V_{GS}= 0; I_D= 250μA	60			V
$V_{GS(th)}$	Gate Threshold Voltage	V_{DS}= V_{GS}; I_D=1mA	2.0		4.0	V
V_{SD}	Diode Forward On-Voltage	I_S=60A ;V_{GS}= 0			1.6	V
$R_{DS(on)}$	Drain-Source On-Resistance	V_{GS}= 10V; I_D=30A			18	mΩ
I_{GSS}	Gate-Body Leakage Current	V_{GS}= ±20V;V_{DS}= 0			±100	nA
I_{DSS}	Zero Gate Voltage Drain Current	V_{DS}= 60V; V_{GS}= 0			1	μA
t_r	Rise Time	V_{GS}=10V; I_D=60A; V_{DD}=30V; R_G=2.5Ω			30	ns
$t_{d(on)}$	Turn-on Delay Time				30	
t_f	Fall Time				30	
$t_{d(off)}$	Turn-off Delay Time				50	