

N-Channel MOSFET Transistor

• FEATURES

- Static drain-source on-resistance:
 $R_{DS(on)} \leq 150m\Omega$
- Enhancement mode
- Fast Switching Speed
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

• DESCRIPTION

- Efficient and reliable device for use in a wide variety of applications

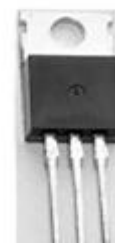
• ABSOLUTE MAXIMUM RATINGS($T_a=25^\circ\text{C}$)

SYMBOL	PARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage	200	V
V_{GS}	Gate-Source Voltage	± 20	V
I_D	Drain Current-Continuous	18	A
I_{DM}	Drain Current-Single Pulsed	72	A
P_D	Total Dissipation @ $T_c=25^\circ\text{C}$	150	W
T_j	Max. Operating Junction Temperature	175	$^\circ\text{C}$
T_{stg}	Storage Temperature	-55~175	$^\circ\text{C}$

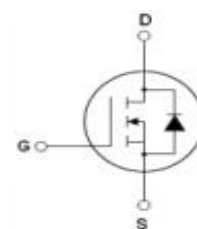
• THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th(ch-c)}$	Channel-to-case thermal resistance	1	$^\circ\text{C/W}$
$R_{th(ch-a)}$	Channel-to-ambient thermal resistance	62	$^\circ\text{C/W}$

TO-220

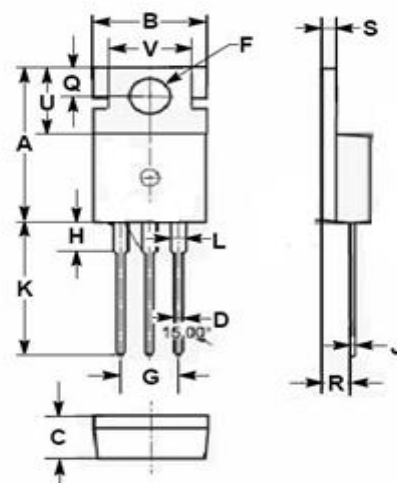


1 2 3



pin 1, Gate
2, Drain
3, Source

TO-220C package



DIM	mm	
	MIN	MAX
A	15.50	15.90
B	9.90	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	13.00	13.40
L	1.10	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

ELECTRICAL CHARACTERISTICS**T_c=25°C unless otherwise specified**

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
BV _{DSS}	Drain-Source Breakdown Voltage	V _{GS} =0V; I _D =250 μ A	200			V
V _{GS(th)}	Gate Threshold Voltage	V _{DS} =V _{GS} ; I _D =250 μ A	2		4	V
R _{DS(on)}	Drain-Source On-Resistance	V _{GS} =10V; I _D =11A			150	m Ω
I _{GSS}	Gate-Source Leakage Current	V _{GS} = ±20V			±0.1	μ A
I _{DSS}	Drain-Source Leakage Current	V _{DS} =200V; V _{GS} = 0V			25	μ A
V _{SD}	Diode forward voltage	I _F =11A; V _{GS} = 0V			1.3	V