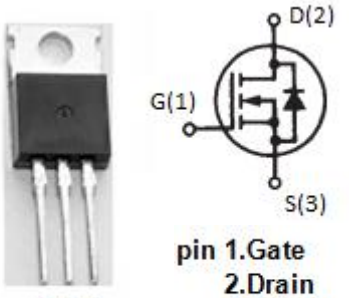
iscN-Channel MOSFET Transistor IRFBC30A



- **FEATURES**
- Low drain-source on-resistance:
  R_{DS}(ON) =2.2Ω (MAX)
- Enhancement mode:
  Vth = 2 to 4.5V (V_{DS} = 10 V, I_D=0.25mA)
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

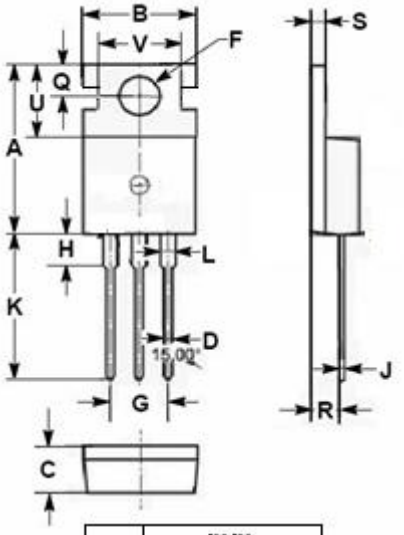
- **DESCRITION**
- Switching Voltage Regulators

- **ABSOLUTE MAXIMUM RATINGS(T_a=25℃)**

SYMBOL	PARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage	600	V
V_{GS}	Gate-Source Voltage	±30	V
I_D	Drain Current-Continuous	3.6	A
I_{DM}	Drain Current-Single Pulsed	14	A
P_D	Total Dissipation @T_C=25℃	74	W
T_j	Max. Operating Junction Temperature	-55~150	℃
T_{stg}	Storage Temperature	-55~150	℃

- **THERMAL CHARACTERISTICS**

SYMBOL	PARAMETER	MAX	UNIT
Rth(ch-c)	Channel-to-case thermal resistance	1.7	℃/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

iscN-Channel MOSFET Transistor IRFBC30A

ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
BV_{DSS}	Drain-Source Breakdown Voltage	V_{GS}=0V; I_D= 0.25mA	600			V
$V_{GS(th)}$	Gate Threshold Voltage	V_{DS}= 10V; I_D=0.25mA	2		4.5	V
$R_{DS(on)}$	Drain-Source On-Resistance	V_{GS}=10V; I_D=2.2A			2.2	Ω
I_{GSS}	Gate-Source Leakage Current	V_{GS}= ±30V;V_{DS}= 0V			±100	nA
I_{DSS}	Drain-Source Leakage Current	V_{DS}=600V; V_{GS}= 0V V_{DS}=480V; V_{GS}= 0V;T_J=125℃			25 250	μA
V_{SDF}	Diode forward voltage	I_{DR} =3.6A, V_{GS} = 0 V			1.6	V