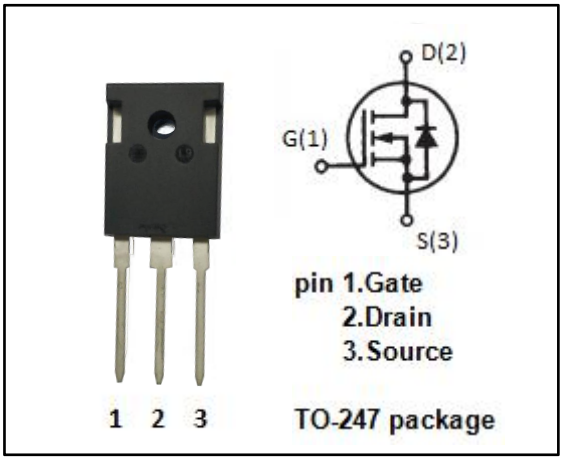
iscN-Channel MOSFET Transistor IRFP048R

- **FEATURES**
- Low drain-source on-resistance:
  $R_{DS}(ON)$ ⩽18mΩ @V_{GS}=10V
- Enhancement mode:
  Vth = 2.0 to 4.0V (V_{DS} = 10 V, I_D=0.25mA)
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

- **DESCRIPTION**
- Switching Voltage Regulators

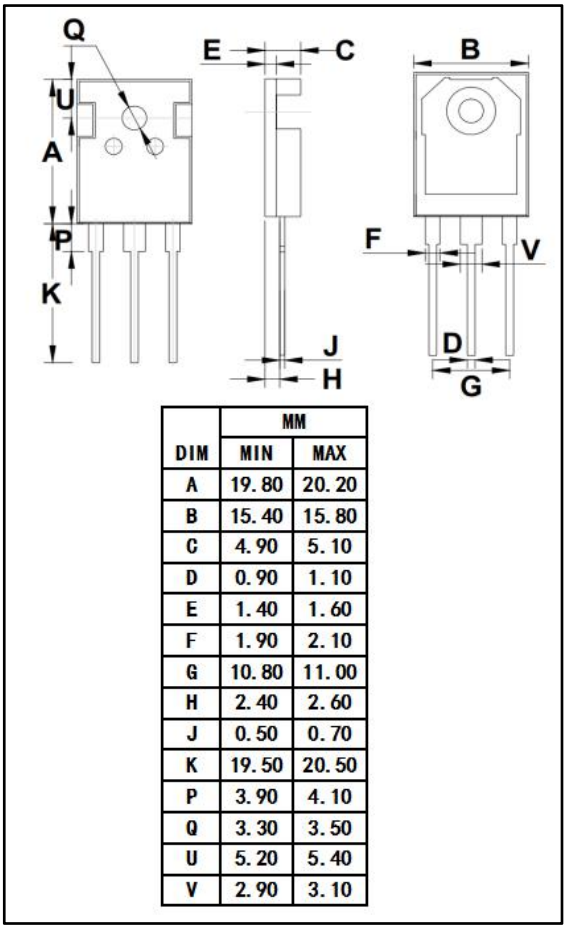


- **ABSOLUTE MAXIMUM RATINGS(T_a=25℃)**

SYMBOL	PARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage	60	V
V_{GS}	Gate-Source Voltage	±20	V
I_D	Drain Current-Continuous	70	A
I_{DM}	Drain Current-Single Pulsed	290	A
P_D	Total Dissipation @T_C=25℃	190	W
T_j	Max. Operating Junction Temperature	-55~175	℃
T_{stg}	Storage Temperature	-55~175	℃

- **THERMAL CHARACTERISTICS**

SYMBOL	PARAMETER	MAX	UNIT
Rth(ch-c)	Channel-to-case thermal resistance	0.8	℃/W



DIM	MM MIN	MM MAX
A	19.80	20.20
B	15.40	15.80
C	4.90	5.10
D	0.90	1.10
E	1.40	1.60
F	1.90	2.10
G	10.80	11.00
H	2.40	2.60
J	0.50	0.70
K	19.50	20.50
P	3.90	4.10
Q	3.30	3.50
U	5.20	5.40
V	2.90	3.10

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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	60			V
$V_{GS(th)}$	Gate Threshold Voltage	V_{DS}= 10V; I_D=0.25mA	2.0		4.0	V
$R_{DS(on)}$	Drain-Source On-Resistance	V_{GS}=10V; I_D=44A			18	mΩ
I_{GSS}	Gate-Source Leakage Current	V_{GS}= ±20V;V_{DS}= 0V			±100	nA
I_{DSS}	Drain-Source Leakage Current	V_{DS}=60V; V_{GS}= 0V V_{DS}=48V; V_{GS}= 0V;T_J=125℃			25 250	uA
V_{SDF}	Diode forward voltage	I_{DR} =73A, V_{GS} = 0 V			2.0	V