INCHANGE Semiconductor

isc N-Channel MOSFET Transistor   IRFP4137，IIRFP4137

• FEATURES
- Static drain-source on-resistance:
  - $R_{DS}(on) \leq 69m\Omega$
- Enhancement mode:
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation
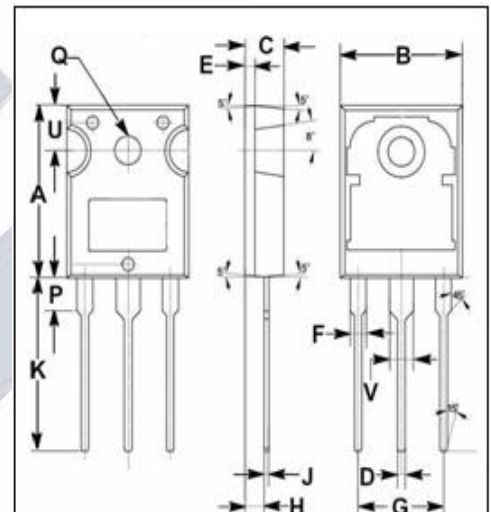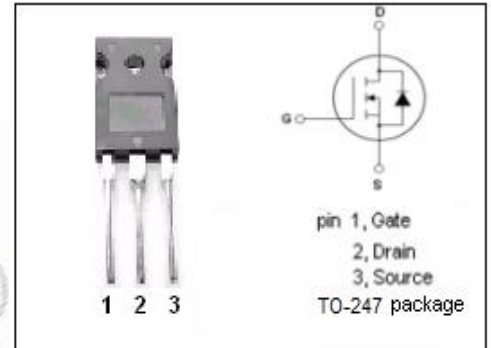
• DESCRITION
- High Speed Power Switching

pin 1, Gate
2, Drain
3, Source
TO-247 package

• ABSOLUTE MAXIMUM RATINGS(Ta=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage	300	V
V_{GS}	Gate-Source Voltage	± 20	V
I_D	Drain Current-Continuous	38	A
I_{DM}	Drain Current-Single Pulsed	152	A
P_D	Total Dissipation @T_C=25℃	341	W
T_j	Max. Operating Junction Temperature	175	℃
T_{stg}	Storage Temperature	-55~175	℃

• THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
Rth(j-c)	Channel-to-case thermal resistance	0.44	℃/W
Rth(j-a)	Channel-to-ambient thermal resistance	40	℃/W

	mm	
DIM	MIN	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

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$_D$=250μA	300			V
V$_{GS(th)}$	Gate Threshold Voltage	V$_{DS}$=V$_{GS}$; I$_D$=250μA	3.0		5.0	V
R$_{DS(on)}$	Drain-Source On-Resistance	V$_{GS}$=10V; I$_D$=24A			69	mΩ
I$_{GSS}$	Gate-Source Leakage Current	V$_{GS}$= ±20V			±0.1	μA
I$_{DSS}$	Drain-Source Leakage Current	V$_{DS}$=250V; V$_{GS}$= 0V			20	μA
V$_{SD}$	Diode forward voltage	I$_S$=24A, V$_{GS}$ = 0V			1.3	V