

isc P-Channel MOSFET Transistor

IRF5210SPBF

• FEATURES

- P-channel
- With TO-263(D2PAK) packaging
- Uninterruptible power supply
- High speed switching
- Ultra low on-resistance
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operationz

• APPLICATIONS

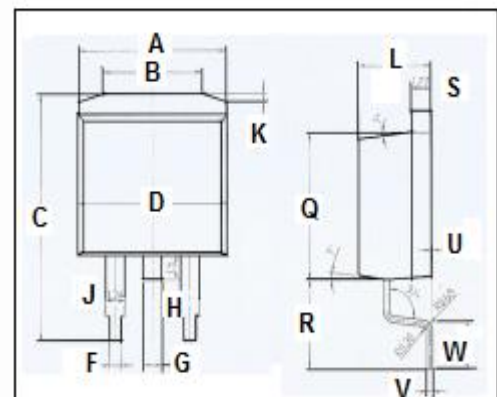
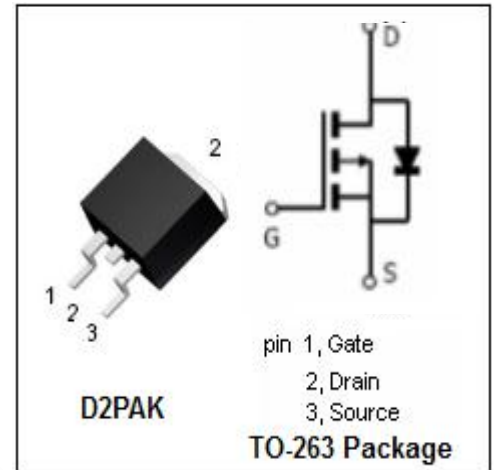
- Switching applications

• ABSOLUTE MAXIMUM RATINGS(T_a=25°C)

SYMBOL	PARAMETER	VALUE	UNIT
V _{DSS}	Drain-Source Voltage	-100	V
V _{GSS}	Gate-Source Voltage	±20	V
I _D	Drain Current-Continuous@T _c =25°C T _c =100°C	-38 -24	A
I _{DM}	Drain Current-Single Pulsed	-140	A
P _D	Total Dissipation	170	W
T _j	Operating Junction Temperature	-55~150	°C
T _{stg}	Storage Temperature	-55~150	°C

• THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
R _{th(ch-c)}	Channel-to-case thermal resistance	0.75	°C/W
R _{th(ch-a)}	Channel-to-ambient thermal resistance	40	°C/W



DIM	mm	
	MIN	MAX
A	10	
B	6.6	6.8
C	15.23	15.25
D	10.15	10.17
F	0.76	0.78
G	1.26	1.28
H	1.4	1.6
J	1.33	1.35
K	0.4	0.6
L	4.6	4.8
Q	8.69	8.71
R	5.28	5.30
S	1.26	1.28
U	0.0	0.2
V	0.37	0.39
W	2.80	2.82

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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 =-0.25mA	-100			V
V _{GS(th)}	Gate Threshold Voltage	V _{DS} =±20V; I _D =-0.25mA	-2		-4	V
R _{DS(on)}	Drain-Source On-Resistance	V _{GS} = -10V; I _D =-38A			60	mΩ
I _{GSS}	Gate-Source Leakage Current	V _{GS} = ±20V; V _{DS} = 0V			±0.1	μA
I _{DSS}	Drain-Source Leakage Current	V _{DS} = -100V; V _{GS} = 0V; T _j =25°C V _{DS} = -80V; V _{GS} = 0V; T _j =125°C			25 250	μA
V _{SDF}	Diode forward voltage	I _{SD} =-23A, V _{GS} = 0 V			-1.6	V