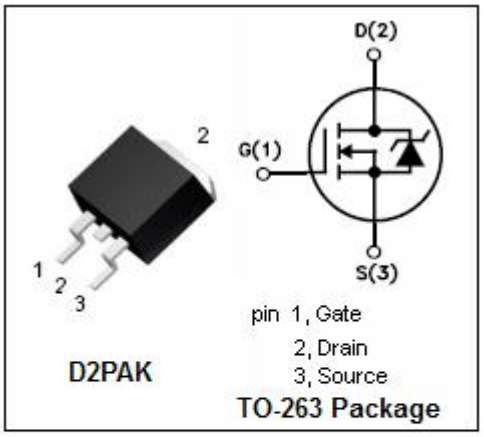
isc N-Channel MOSFET Transistor IRL8113S

• DESCRIPTION

- Static drain-source on-resistance:
  $R_{DS}(on)$ ≤6mΩ@V_{GS}= 10V
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation



• APPLICATIONS

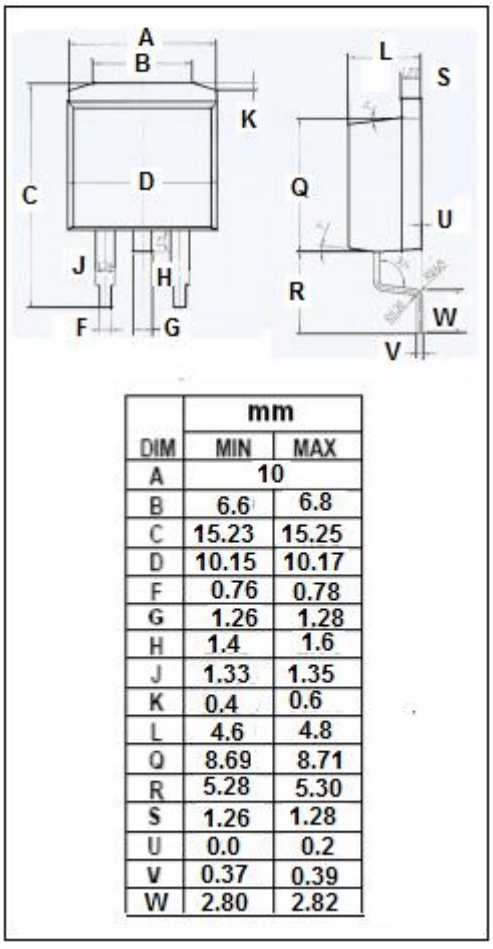
- Provides the designer with an extremely efficient and reliable device for use in a wide variety of applications.

ABSOLUTE MAXIMUM RATINGS(T_C=25℃)

SYMBOL	ARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage (V_{GS}=0)	30	V
V_{GS}	Gate-Source Voltage	±20	V
I_D	Drain Current-continuous	105	A
$I_{D(puls)}$	Pulse Drain Current	420	A
P_{tot}	Total Dissipation	110	W
T_j	Max. Operating Junction Temperature	175	℃
T_{stg}	Storage Temperature Range	-55~175	℃

• THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}c}$	Thermal Resistance, Junction to Case	1.36	℃/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℃)

SYMBOL	PARAMETER	CONDITIONS	MIN	TYPE	MAX	UNIT
$V_{(BR)DSS}$	Drain-Source Breakdown Voltage	V_{GS}= 0; I_D= 250μA	30			V
$V_{GS(th)}$	Gate Threshold Voltage	V_{DS}= V_{GS}; I_D=250μA	1.4		2.3	V
$R_{DS(on)}$	Drain-Source On-Resistance	V_{GS}= 10V; I_D=21A			6	mΩ
I_{GSS}	Gate-Body Leakage Current	V_{GS}= ±20V;V_{DS}= 0			±100	nA
I_{DSS}	Zero Gate Voltage Drain Current	V_{DS}= 24V; V_{GS}= 0;T_j =25℃			1	μA
		V_{DS}= 24V; V_{GS}= 0;T_j =125℃			150	
V_{SD}	Diode Forward On-Voltage	I_S= 17A ;V_{GS}= 0			1.0	V