

isc N-Channel MOSFET Transistor

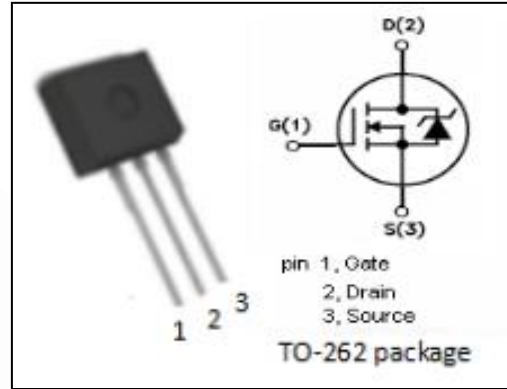
IRFZ24NLPbF

• FEATURES

- With TO-262(DPAK) packaging
- Surface mount
- High speed switching
- 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	55	V
V _{GSS}	Gate-Source Voltage	±20	V
I _D	Drain Current-Continuous@T _C =25°C T _C =100°C	17 12	A
I _{DM}	Drain Current-Single Pulsed	68	A
P _D	Total Dissipation	45	W
T _J	Operating Junction Temperature	-55~175	°C
T _{stg}	Storage Temperature	-55~175	°C

• THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
R _{th(ch-c)}	Channel-to-case thermal resistance	3.3	°C/W
R _{th(ch-a)}	Channel-to-ambient thermal resistance	40	°C/W

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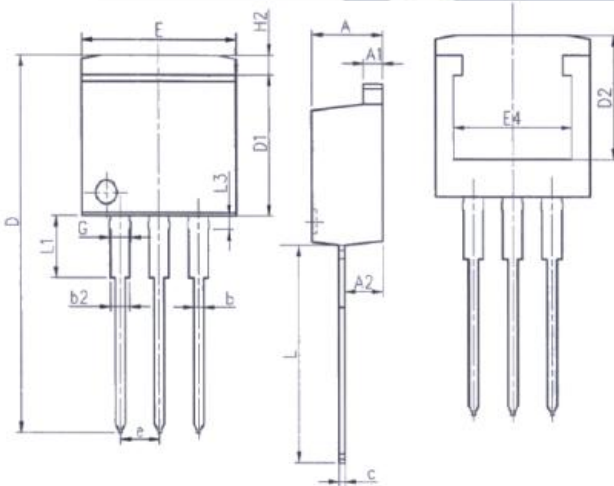
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ELECTRICAL CHARACTERISTICS

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	55			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 =10A			70	mΩ
I _{GSS}	Gate-Source Leakage Current	V _{GS} = ±20V; V _{DS} = 0V			±0.1	μA
I _{DSS}	Drain-Source Leakage Current	V _{DS} = 55V; V _{GS} = 0V@T _C =25°C T _C =125°C			20 250	μA
V _{SDF}	Diode forward voltage	I _{SD} =10A, V _{GS} = 0 V			1.3	V

DIMENSIONAL DRAWING



Unit: mm		
Symbol	Min.	Max.
A	4.37	4.77
A1	1.22	1.42
A2	2.47	2.87
b	0.70	0.97
b2	1.17	1.42
c	0.28	0.53
D	23.20	24.02
D1	8.38	8.90
D2	6.00	-

Unit: mm		
Symbol	Min.	Max.
E	9.90	10.39
E4	7.30	-
e	2.54BSC	
G	1.25	1.50
H2	-	1.31
L	13.34	14.10
L1	3.30	4.06
L3	0.95	1.15