

isc N-Channel MOSFET Transistor

IPT012N08N5

DESCRIPTION

- Drain Current $-I_D=300A@ T_C=25^\circ C$
- Drain Source Voltage- $V_{DSS}= 80V(\text{Min})$
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Switching power supplies
- Switching converters, motor driver, relay driver

ABSOLUTE MAXIMUM RATINGS($T_C=25^\circ C$)

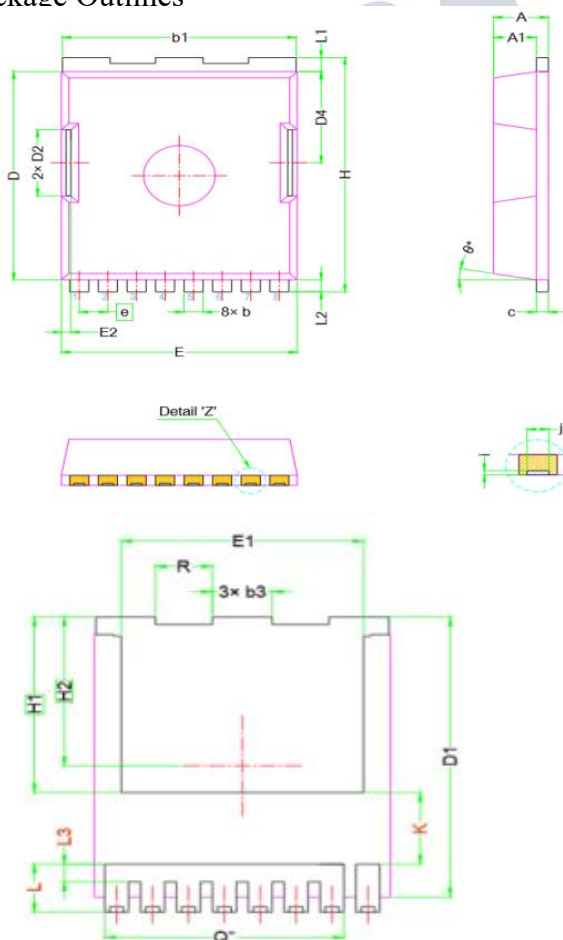
SYMBOL	PARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage ($V_{GS}=0$)	80	V
V_{GS}	Gate-Source Voltage	± 20	V
I_D	Drain Current-continuous@ $T_C=25^\circ C$	300	A
I_{DM}	Pulsed drain current @ $T_C=25^\circ C$	1200	A
E_{AS}	Avalanche Energy, Single Pulse , $L=0.4mH$, $T_C=25^\circ C$	820	mJ
P_{tot}	Power dissipation , $T_C=25^\circ C$	375	W
T_j	Max. Operating Junction Temperature	175	$^\circ C$
T_{stg}	Storage Temperature Range	-55~175	$^\circ C$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	0.4	$^\circ C/W$

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• ELECTRICAL CHARACTERISTICS (T_c=25°C)

SYMBOL	PARAMETER	CONDITIONS	MIN	TYPE	MAX	UNIT
V _{(BR)DSS}	Drain-Source Breakdown Voltage	V _{GS} =0; I _D =250μA	80	-	-	V
V _{GS(TH)}	Gate Threshold Voltage	V _{DS} =V _{GS} ; I _D =250μA	2	-	4	V
R _{DS(ON)}	Drain-Source On-stage Resistance	V _{GS} =10V; I _D =150A	-	-	1.2	mΩ
I _{GSS}	Gate Source Leakage Current	V _{GS} =±20V; V _{DS} =0	-	-	±100	nA
I _{DSS}	Zero Gate Voltage Drain Current	V _{DS} =80V; V _{GS} =0	-	-	1	uA
V _{SD}	Diode Forward Voltage	I _S =150A; V _{GS} =0	-	-	1.2	V

Package Outlines


DIM	mm		
	MIN	TYP.	MAX
A	2.20	2.30	2.40
A1	1.70	1.80	1.90
b	0.70	0.80	0.90
b1	9.70	9.80	9.90
b3	1.90	2.00	2.10
c	0.40	0.50	0.60
D	10.28	10.38	10.48
D1	10.98	11.08	11.18
D2	3.20	3.30	3.40
D4	4.45	4.55	4.65
E	9.80	9.90	10.00
E1	8.00	8.10	8.20
E2	0.30	0.40	0.50
e	1.20BSC		
H	11.58	11.68	11.78
H1	6.95BSC		
H2	5.69BSC		
i	0.10REF		
j	0.46REF		
k	2.80REF		
L	1.60	1.90	2.10
L1	0.60	0.70	0.80
L2	0.50	0.60	0.70
L3	0.60	0.70	0.80
N	8		
Q	0.80REF		
R	1.80	1.90	2.00

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