

isc N-Channel MOSFET Transistor

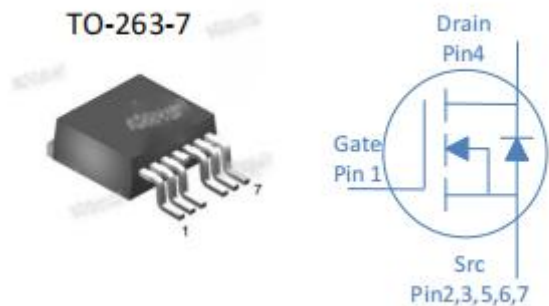
IPB065N15N3

DESCRIPTION

- Drain Source Voltage- : $V_{DSS}=150V(\text{Min})$
- Fast Switching Speed
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Switch Mode Power Supply (SMPS)
- Uninterruptible Power Supply (UPS)

ABSOLUTE MAXIMUM RATINGS($T_a=25^\circ\text{C}$)

SYMBOL	PARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage ($V_{GS}=0$)	150	V
V_{GS}	Gate-Source Voltage	± 20	V
I_D	Drain Current-continuous@ $T_C=25^\circ\text{C}$	213	A
I_{DM}	Drain Current-Single Pulse	650	A
P_{tot}	Total Dissipation@ $T_C=25^\circ\text{C}$	429	W
E_{AS}^*	Repetitive avalanche energy	720	mJ
T_j	Max. Operating Junction Temperature	175	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-55~175	$^\circ\text{C}$

THERMAL CHARACTERISTICS

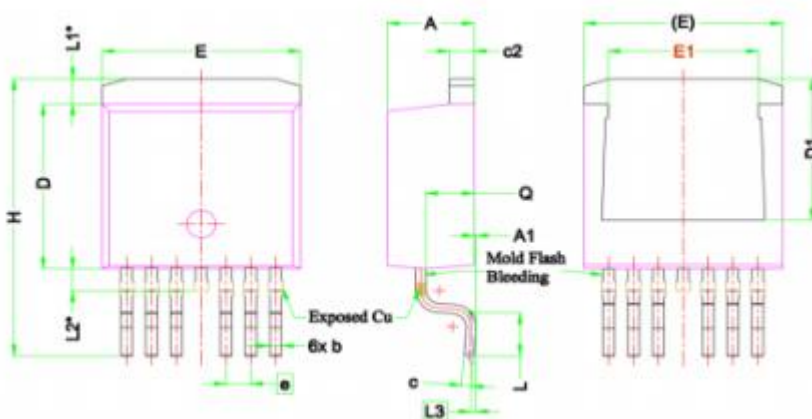
SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	0.35	$^\circ\text{C}/\text{W}$

Note:

* $L=0.4\text{mH}$, $T_C=25^\circ\text{C}$

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• ELECTRICAL CHARACTERISTICS (T_c=25°C)

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{(BR)DSS}	Drain-Source Breakdown Voltage	V _{GS} =0; I _D = 250uA	150			V
V _{GS(TH)}	Gate Threshold Voltage	V _{DS} =V _{GS} , I _D = 250uA	2		4	V
R _{DS(ON)}	Drain-Source On-stage Resistance	V _{GS} = 10V; I _D =20A			4.0	mΩ
I _{GSS}	Gate Source Leakage Current	V _{GS} = ±20V; V _{DS} = 0			±10	uA
I _{DSS}	Zero Gate Voltage Drain Current	V _{DS} =150V; V _{GS} = 0			100	μA

TO-263-7, 7 leads


SYMBOL	DIMENSIONS		
	MIN.	NOM.	MAX.
A	4.24	4.44	4.64
A1	0.00	0.10	0.25
b	0.50	0.60	0.70
c	0.40	0.50	0.60
c2	1.15	1.27	1.40
D	8.82	8.92	9.02
D1	6.86	7.65	—
E	9.96	10.16	10.36
E1	6.89	7.77	7.89
e	1.27 BSC		
H	14.61	15.00	15.88
L	1.78	2.32	2.79
L1	1.36 REF.		
L2	1.20 REF.		
L3	0.25 BSC		
Q	2.30	2.48	2.70

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