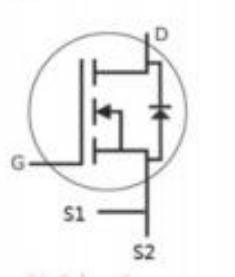
ISF1077

eq IPZA65R029

N-Channel MOSFET Transistor



FEATURES

- Reduced Switching Losses
- Ultra-fast Body Diode
- Higher System Efficiency

APPLICATIONS

- Switch Mode Power Supply (SMPS)
- Uninterruptible Power Supply (UPS)
- Suitable for Soft Switching Topologies

Absolute Maximum Ratings(T_C=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage	650	V
V_{GS}	Gate-Source Voltage-Continuous	±20	V
I_D	Drain Current-Continuous@Tc=25℃	69	A
I_D	Drain Current-Continuous@Tc=100℃	44	A
I_{DM}	Drain Current-Single Pulse	304	A
P_D	Total Dissipation @T_C=25℃	305	W
T_J	Max. Operating Junction Temperature	150	℃
T_{stg}	Storage Temperature	-55~150	℃

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}c}$	Thermal Resistance, Junction to Case	0.41	℃/W

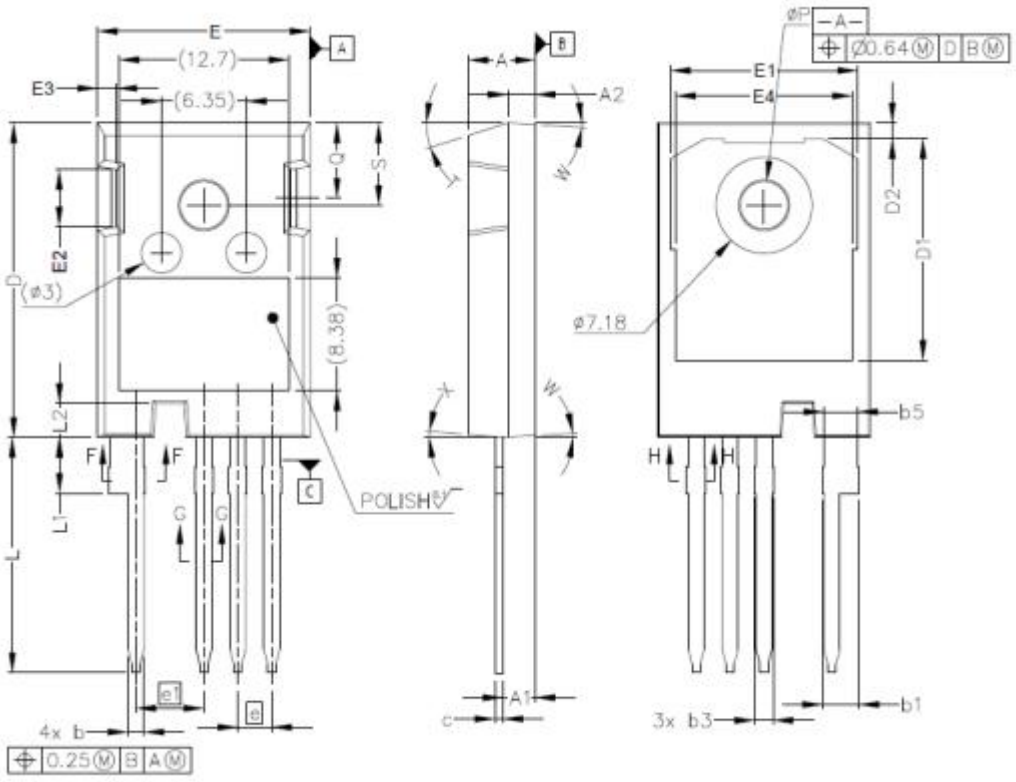
N-Channel MOSFET Transistor

ELECTRICAL CHARACTERISTICS (T_C=25℃)

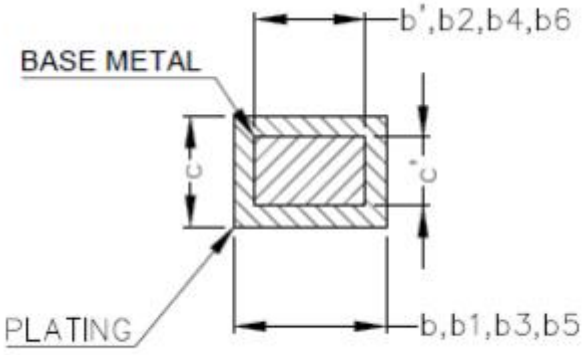
SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
$V_{(BR)DSS}$	Drain-Source Breakdown Voltage	V_{GS}= 0, I_D= 1mA	650	-	-	V
I_{DSS}	Zero Gate Voltage Drain Current	V_{DS}= 650V, V_{GS}= 0	-	-	1	uA
I_{GSS}	Gate-Body Leakage Current	V_{GS}= ±20V,V_{DS}= 0	-	-	±100	nA
$V_{GS(th)}$	Gate Threshold Voltage	V_{DS}= V_{GS}, I_D= 1.8mA	3.5	-	4.5	V
$R_{DS(on)}$	Drain-Source On-Resistance	V_{GS}= 10V, I_D= 36A	-	-	29	mΩ
V_{SD}	Diode Forward Voltage	I_{SD}= 36A, V_{GS}= 0V	-	1.1	--	V

PACKAGE DIMENSIONS (UNIT: mm):

TO-247-4



N-Channel MOSFET Transistor



SYMBOL	MILLIMETERS	
	MIN	MAX
A	4.83	5.21
A1	2.29	2.54
A2	1.91	2.16
b'	1.07	1.28
b	1.07	1.33
b1	2.39	2.94
b2	2.39	2.84
b3	1.07	1.60
b4	1.07	1.50
b5	2.39	2.69
b6	2.39	2.64
c'	0.55	0.65
c	0.55	0.68
D	23.30	23.60
D1	16.25	17.65
D2	0.95	1.25
E	15.75	16.13
E1	13.10	14.15
E2	3.68	5.10
E3	1.00	1.90
E4	12.38	13.43
e	2.54 BSC	
e1	5.08 BSC	
N	4	
L	17.31	17.82
L1	3.97	4.37
L2	2.35	2.65
øP	3.51	3.65
Q	5.49	6.00
S	6.04	6.30
T	17.5° REF.	
W	3.5 ° REF.	
X	4° REF.	

PRODUCT DISCLAIMER

ISC reserves the rights to make changes of the content herein the datasheet at any time without notification. The information contained herein is presented only as a guide for the applications of our products.

ISC products are intended for usage in general electronic equipment. The products are not designed for use in equipment which require specialized quality and/or reliability, or in equipment which could have applications in hazardous environments, aerospace industry, or medical field. Please contact us if you intend our products to be used in these special applications.

ISC makes no warranty or guarantee regarding the suitability of its products for any particular purpose, nor does ISC assume any liability arising from the application or use of any products, and specifically disclaims any and all liability, including without limitation special, consequential or incidental damages.