

XND19-V30 (DFN)

Embedded PV bypass switched circuit

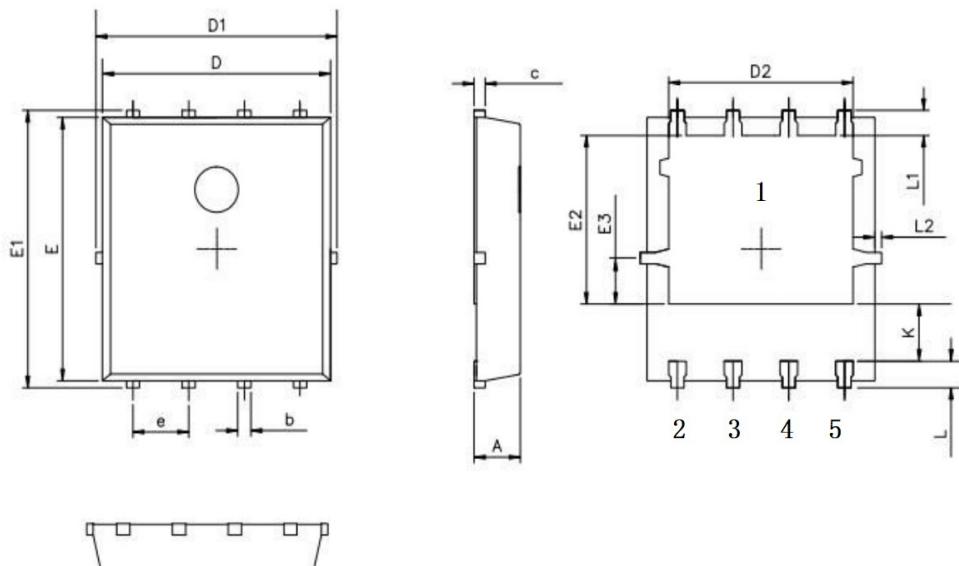
Voltage | 30V | Current | 25A

Features

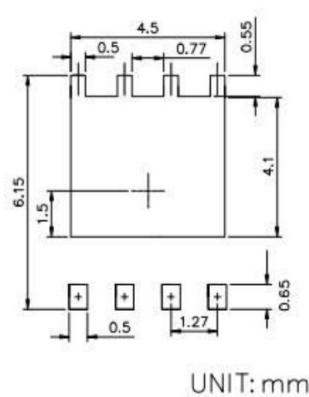
- Small size package can be embedded inside the solar panel
- Low power dissipation, low loss, high efficiency
- Very low average forward voltage
- High anti-surge capacity
- High ESD protection capability
- Special device for solar junction box bypass
- Pass the 25 year life qualification test
- Lead-free product

Device characteristic

- Plastic encapsulated DFN
- Lead end welding: T=260°C±5°C, 10S±1S
- Port polarity: As shown in the figure



RECOMMENDED LAND PATTERN



	MIN	NOM	MAX
A	0.90	1.00	1.10
b	0.25	0.35	0.50
c	0.10	0.20	0.30
D	4.80	5.00	5.30
D1	4.90	5.10	5.50
D2	3.92	4.02	4.20
E	5.65	5.75	5.85
E1	5.90	6.05	6.20
E2	3.325	3.525	3.775
E3	0.80	0.90	1.00
e		1.27	
L	0.40	0.55	0.70
L1		0.65	
L2	0.00		0.15
K	1.00	1.30	1.50

Outlet No.	Symbol	Description
1	K	Negative pole
2	A	Positive pole
3	A	Positive pole
4	A	Positive pole
5	A	Positive pole

Maximum absolute rating and electrical characteristics

Unless otherwise specified $T_j=25^\circ\text{C}$

Parameters	Symbol	Parameter value	Unit
Maximum reverse voltage	V_R	30	V
Maximum forward current	$I_F (\text{AV})$	25	A
Surge forward current (50Hz half-sinusoid/8.3ms)	I_{FSM}	300	A
ESD (HBM)		30	kV
Max average forward on-voltage (IF=16.5A)	$V_{F(\text{AVG})}$	≤ 85	mV
Max average forward on-voltage (IF=25A)		≤ 130	mV
Maximum reverse leakage current ($VR=30\text{V}$)	I_R	≤ 100	μA
Thermal resistance	R_{RthJC}	2	$^\circ\text{C}/\text{W}$
Operating junction temperature range	T_j	$-55 \sim +150$	$^\circ\text{C}$
Storage temperature	T_{STG}	$-55 \sim +150$	$^\circ\text{C}$

Parameter curve

