

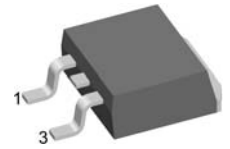
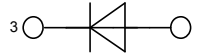
High Voltage Standard Rectifier

Single Diode

$V_{RRM} = 2200 \text{ V}$
 $I_{FAV} = 30 \text{ A}$
 $V_F = 1.26 \text{ V}$

Part number

DNA 30 E 2200 PC



Backside: anode

Features / Advantages:

- Planar passivated chips
- Very low leakage current
- Very low forward voltage drop
- Improved thermal behaviour

Applications:

- Diode for main rectification
- For single and three phase bridge configurations

Package:

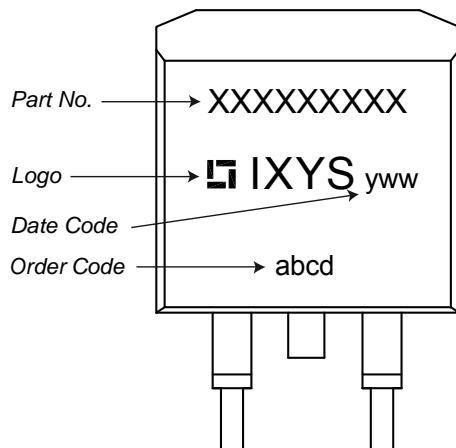
- Housing: TO-263 (D2Pak)
- Industry standard outline
- Epoxy meets UL 94V-0
- RoHS compliant

Ratings

Symbol	Definition	Conditions	Ratings			Unit	
			min.	typ.	max.		
V_{RRM}	max. repetitive reverse voltage				2200	V	
I_R	reverse current	$V_R = 2200 \text{ V}$			40	μA	
		$V_R = 2200 \text{ V}$			1.5	mA	
V_F	forward voltage	$I_F = 30 \text{ A}$			1.28	V	
		$I_F = 60 \text{ A}$			1.59	V	
		$I_F = 30 \text{ A}$	$T_{VJ} = 150^\circ\text{C}$			1.26	V
		$I_F = 60 \text{ A}$	$T_{VJ} = 150^\circ\text{C}$			1.61	V
I_{FAV}	average forward current	rectangular $d = 0.5$			30	A	
V_{FO}	threshold voltage	} for power loss calculation only			0.88	V	
r_F	slope resistance				12.9	m Ω	
R_{thJC}	thermal resistance junction to case				0.70	K/W	
T_{VJ}	virtual junction temperature		-55		175	$^\circ\text{C}$	
P_{tot}	total power dissipation				210	W	
I_{FSM}	max. forward surge current	$t = 10 \text{ ms}; (50 \text{ Hz}), \text{ sine}$	$T_{VJ} = 45^\circ\text{C}$			370	A
		$t = 8,3 \text{ ms}; (60 \text{ Hz}), \text{ sine}$	$V_R = 0 \text{ V}$			400	A
		$t = 10 \text{ ms}; (50 \text{ Hz}), \text{ sine}$	$T_{VJ} = 150^\circ\text{C}$			315	A
		$t = 8,3 \text{ ms}; (60 \text{ Hz}), \text{ sine}$	$V_R = 0 \text{ V}$			340	A
I^2t	value for fusing	$t = 10 \text{ ms}; (50 \text{ Hz}), \text{ sine}$	$T_{VJ} = 45^\circ\text{C}$			685	A ² s
		$t = 8,3 \text{ ms}; (60 \text{ Hz}), \text{ sine}$	$V_R = 0 \text{ V}$			665	A ² s
		$t = 10 \text{ ms}; (50 \text{ Hz}), \text{ sine}$	$T_{VJ} = 150^\circ\text{C}$			495	A ² s
		$t = 8,3 \text{ ms}; (60 \text{ Hz}), \text{ sine}$	$V_R = 0 \text{ V}$			480	A ² s
C_J	junction capacitance	$V_R = 700 \text{ V}; f = 1 \text{ MHz}$			7	pF	

Symbol	Definition	Conditions	Ratings			Unit
			min.	typ.	max.	
I_{RMS}	RMS current	per terminal			35	A
R_{thCH}	thermal resistance case to heatsink			0.25		K/W
T_{stg}	storage temperature		-55		150	°C
Weight				2		g
F_c	mounting force with clip		20		60	N

Product Marking

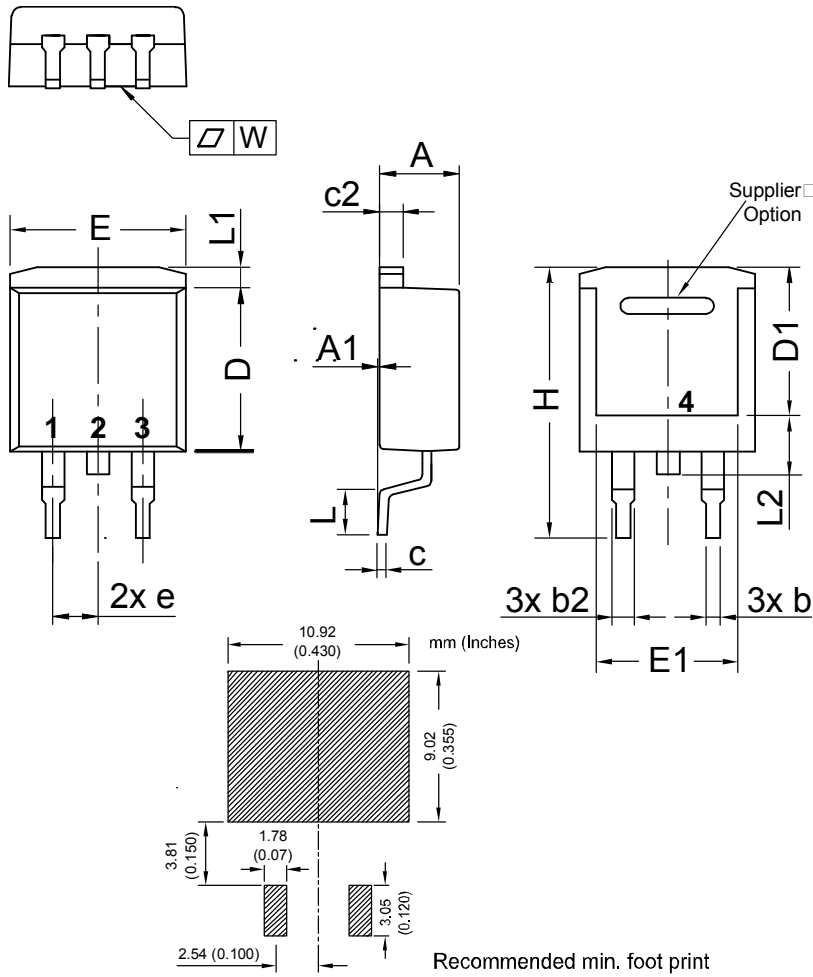


Part number

- D = Diode
- N = High Voltage Standard Rectifier
- A = (≥ 2200 V)
- 30 = Current Rating [A]
- E = Single Diode
- 2200 = Reverse Voltage [V]
- PC = TO-263AB (D2Pak) (2)

Ordering	Part Name	Marking on Product	Delivering Mode	Base Qty	Code Key
Standard	DNA 30 E 2200 PC	DNA30E2200PC	Tape & Reel	800	509374

Similar Part	Package	Voltage class
DNA30E2200PA	TO-220AC (2)	2200
DNA30E2200FE	i4-Pac (2HV)	2200

Outlines TO-263 (D2Pak)


Dim.	Millimeter		Inches	
	min	max	min	max
A	4.06	4.83	0.160	0.190
A1	typ. 0.10		typ. 0.004	
b	0.51	0.99	0.020	0.039
b2	1.14	1.40	0.045	0.055
c	0.40	0.74	0.016	0.029
c2	1.14	1.40	0.045	0.029
D	8.38	9.40	0.330	0.370
D1	8.00	8.89	0.315	0.350
E	9.65	10.41	0.380	0.410
E1	6.22	8.20	0.245	0.323
e	2,54 BSC		0,100 BSC	
H	14.61	15.88	0.575	0.625
L	1.78	2.79	0.070	0.110
L1	1.02	1.68	0.040	0.066
L2	1.02	1.52	0.040	0.060
W	typ. 0.02	0.040	typ. 0.0008	0.0016

All dimensions conform with and/or are within JEDEC standard.