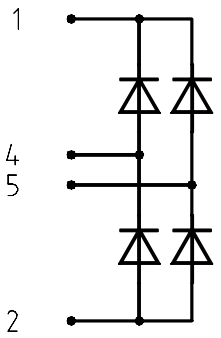
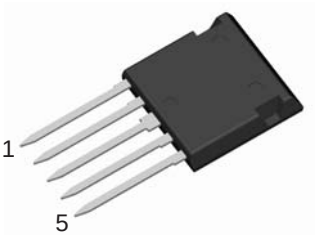
Single Phase Rectifier Bridge

in ISOPLUS i4-PAC™

FBO40-12N

V_{RRM} = 1200 V
$I_{D(AV)M}$ = 40 A
I_{FSM} = 250 A





Rectifier Bridge

Symbol	Conditions	Maximum Ratings	
V_{RRM}		1200	V
I_{FAV}	T_C = 90°C; sine 180° (per diode)	20	A
$I_{D(AV)M}$	T_C = 90°C	40	A
I_{FSM}	T_{VJ} = 25°C; t = 10 ms; sine 50 Hz	250	A
P_{tot}	T_C = 25°C (per diode)	55	W

Symbol	Conditions	Characteristic Values (T_{VJ} = 25°C, unless otherwise specified) min.	typ.	max.	
V_F	I_F = 25 A; T_{VJ} = 25°C		1.1	1.2	V
	T_{VJ} = 125°C		1.1		V
I_R	$V_R = V_{RRM}$; T_{VJ} = 25°C			20	µA
	T_{VJ} = 125°C		0.4		mA
R_{thJC}	(per diode)			2.3	K/W
R_{thJS}			2.9		K/W

Features

- rectifier diodes for line frequency
- ISOPLUS i4-PAC™ package
  - isolated back surface
  - low coupling capacity between pins and heatsink
  - enlarged creepage towards heatsink
  - application friendly pinout
  - high reliability
  - industry standard outline

Applications

- single phase mains rectifiers
- power factor correction in conjunction with boost chopper (FID.../FMD... type)

Data according to IEC 60747 refer to a single diode unless otherwise stated

IXYS reserves the right to change limits, test conditions and dimensions.

Component

Symbol	Conditions	Maximum Ratings	
T_{VJ}		-55...+150	°C
T_{stg}		-55...+125	°C
V_{ISOL}	$I_{ISOL} \leq 1$ mA; 50/60 Hz	2500	V~
F_C	mounting force with clip	20...120	N

Symbol	Conditions	Characteristic Values min.	typ.	max.	
C_p	coupling capacity between shorted pins and mounting tab in the case		40		pF
d_S,d_A	pin - pin	1.7			mm
d_S,d_A	pin - backside metal	5.5			mm
Weight			9		g

Dimensions in mm (1 mm = 0.0394")