

# Single Phase Rectifier Bridge

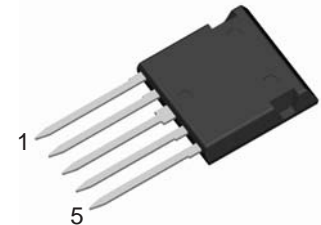
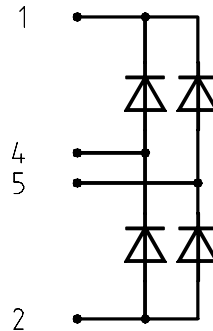
in ISOPLUS i4-PAC™

## FBO40-12N

$$V_{RRM} = 1200 \text{ V}$$

$$I_{D(AV)M} = 40 \text{ A}$$

$$I_{FSM} = 250 \text{ A}$$



### Rectifier Bridge

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

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

### 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
$V_{ISOL}$	$I_{ISOL} \leq 1 \text{ mA}; 50/60 \text{ Hz}$	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
<b>Weight</b>			9	g

**Dimensions in mm (1 mm = 0.0394")**
