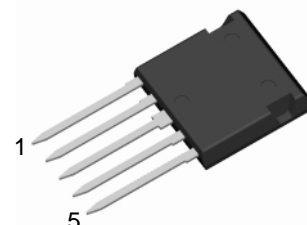
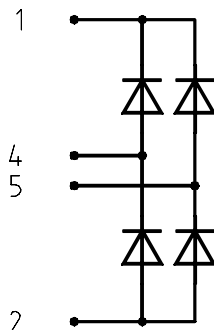


# Fast Single Phase Rectifier Bridge

in ISOPLUS i4-PAC™

## FBE 22-06N1

 $V_{RRM} = 600 \text{ V}$   
 $I_{D(AV)M} = 20 \text{ A}$   
 $t_{rr} = 80 \text{ ns}$ 


### Input Rectifier Bridge

Symbol	Conditions	Maximum Ratings	
$V_{RRM}$		600	V
$I_{FAV}$	$T_C = 90^\circ\text{C}$ ; sine $180^\circ$ (per diode)	10	A
$I_{D(AV)M}$	$T_C = 90^\circ\text{C}$	20	A
$I_{FSM}$	$T_{VJ} = 25^\circ\text{C}$ ; $t = 10 \text{ ms}$ ; sine 50 Hz	40	A
$E_{AS}$	$I_{AS} = 0.9 \text{ A}$ ; $L_{AS} = 180 \mu\text{H}$ ; $T_C = 25^\circ\text{C}$ ; non repetitive	0.1	mJ
$P_{tot}$	$T_C = 25^\circ\text{C}$ (per diode)	35	W

### Features

- HiPerFRED™ Epitaxial Diodes
  - fast and soft reverse recovery – low switching losses
  - avalanche rated
  - low leakage current
- ISOPLUS i4-PAC™ package
  - isolated back surface
  - 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.
$V_F$	$I_F = 15 \text{ A}$ ; $T_{VJ} = 25^\circ\text{C}$ $T_{VJ} = 125^\circ\text{C}$	2.0 1.5	2.2	V V
$I_R$	$V_R = V_{RRM}$ ; $T_{VJ} = 25^\circ\text{C}$ $T_{VJ} = 125^\circ\text{C}$	0.1	0.06	mA mA
$I_{RM}$ $t_{rr}$	$I_F = 10 \text{ A}$ ; $di_F/dt = -400 \text{ A}/\mu\text{s}$ ; $T_{VJ} = 125^\circ\text{C}$ $V_R = 300 \text{ V}$	11 80		A ns
$R_{thJC}$	(per diode)		3.5	K/W

### Applications

- high frequency rectifiers, output rectifiers of switched mode power supplies
- single phase mains rectifiers with minimized electromagnetic emissions
- power factor correction in conjunction with boost chopper (FID.../FMD... type)

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

**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.
$d_s, d_A$	pin - pin	1.7		mm
$d_s, d_A$	pin - backside metal	5.5		mm
$R_{thCH}$	with heatsink compound		0.15	K/W
<b>Weight</b>			9	g

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