

## Three Phase Rectifier Bridge in SIP package

### DF20/30NA series

$I_{F(AV)} = 20/30A$ ,  $V_{RRM} = 800/1600V$

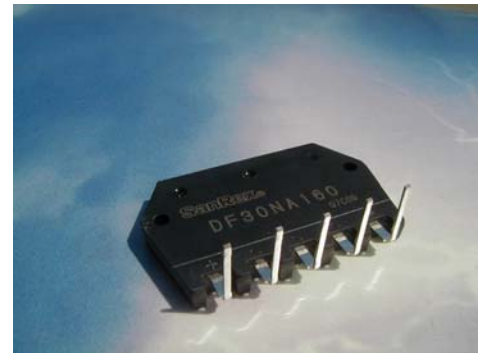
SanRex Three Phase Rectifier Bridge **DF20/30NA series** is designed for applications requiring flat and compact designs. The New **DF-NA series** features a rectifier bridge in a compact **transfer mold SIP package**. This advantage typically reduces the needed connecting parts and manufacturing cost. It also contributes not only to lower cost but also high efficiency and reliability. The modules are isolated for easy mounting with other components or a common heatsink.

#### Features

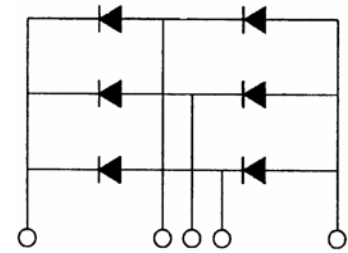
- \* High Surge Capability
- \* Low Forward Voltage Drop
- \* Glass Passivated Chips
- \* 2500V Isolation rating
- \* RoHS compliance

#### Typical Applications

- \* Welding and Plasma Cutting Machines
- \* Battery Chargers
- \* Power Supplies
- \* Motor Controls
- \* Home Appliances



Isolated SIP Package



Internal schematic diagram

#### < Maximum Ratings >

$T_j = 25^\circ C$  (unless otherwise noted)

Symbol	Item	DF20NA80/160	DF30NA80/160	Unit
$V_{RRM}$	Repetitive Peak Reverse Voltage	800/1600	800/1600	V
$V_{RSM}$	Non-Repetitive Peak Reverse Voltage	960/1700	960/1700	V

$I_D$	DC Output Current		20	30	A
$I_{FSM}$	Surge Forward Current	1 cycle, 60Hz, Peak value, non-repetitive	200	300	A
$I^2 t$	$I^2 t$ (for fusing)	Value for one cycle surge current	160	375	A <sup>2</sup> s
$T_j$	Junction Temperature		-40 to +150	-40 to +150	°C
$T_{stg}$	Storage Temperature		-40 to +125	-40 to +125	°C
$V_{ISO}$	Isolation Voltage (R.M.S.)	A.C. 1 minute	2500	2500	V
	Mounting Torque (M3)		0.8	0.8	N*m
	Mass	Typical Value	50	50	g

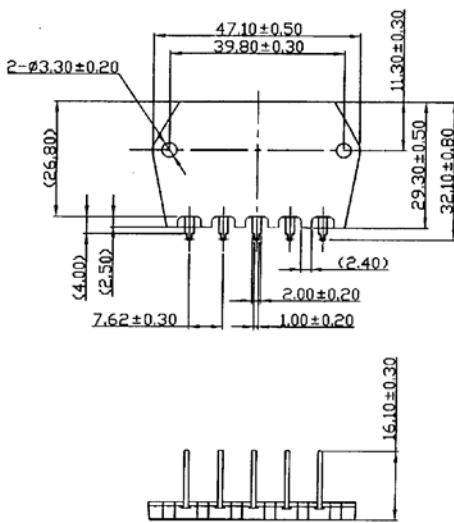
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< Electrical Characteristics >

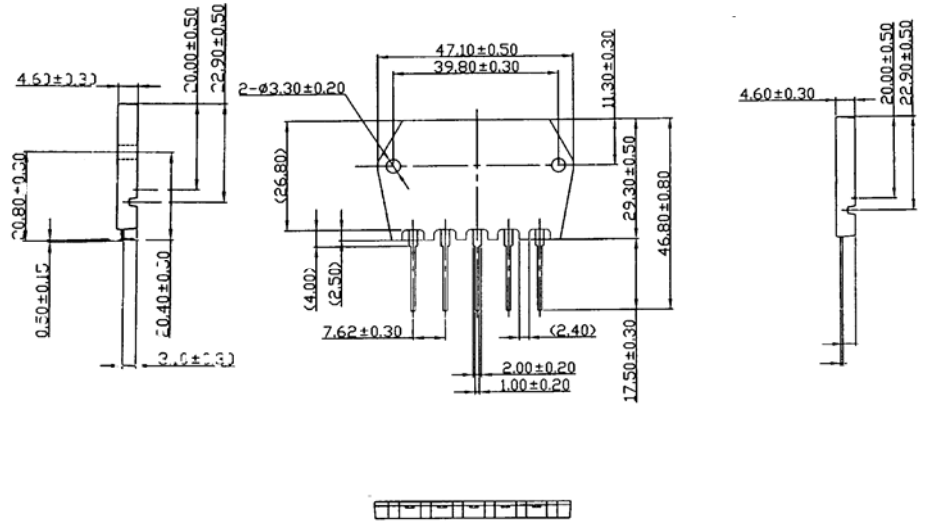
$T_j = 25^\circ\text{C}$  (unless otherwise noted)

Symbol	Item	Conditions	Ratings			Unit
			Min.	Typ.	Max.	
$I_{RRM}$	Repetitive Peak Reverse Current	$V_R = V_{RRM}, T_j = 125^\circ\text{C}$			4.0	mA
$V_{FM}$	Forward Voltage Drop	$I_F = 20/30\text{A}$ , Inst. measurement			1.30	V
$R_{th(j-c)}$	Thermal Resistance	Junction to case			0.8	$^\circ\text{C/W}$



(+) (R) (S) (T) (-)

< Lead form >



< Straight in line >

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